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AUGUST 1992
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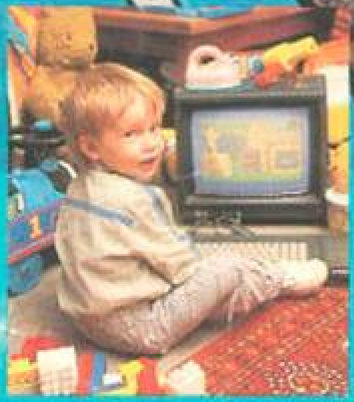












education special

Study this month's Buyers' Guide to find the best learning software for the CPC

...YOU THOUGHT THEY'D GONE FOREVER?

they're back

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NEW! RS232 Interface – sneak preview

Yikes! Where's your covertape? You want to ask your newsagent, that's what you want to do

plus: TURBO THE TORTOISE

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Want a disk version of the covertape? (6128 Plus owners take note) Check out the tape pages for details on how to order your copy.



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ABC 37,120
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LiNe UP

Software heaven!



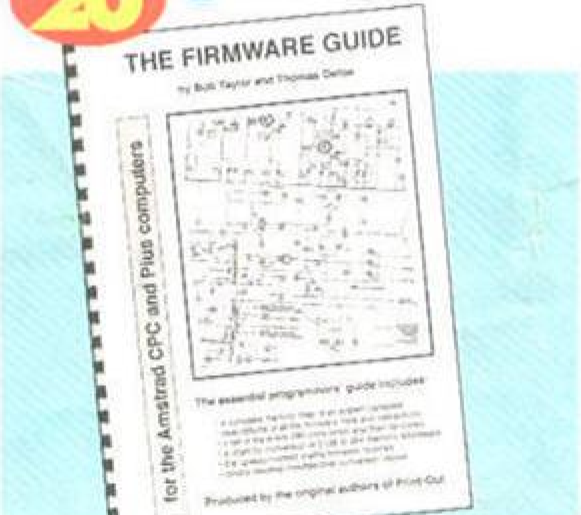
It's four hours from London, it costs the price of a train fare to get there and on sale there are more CPC games than you could carry...!

Turbo the Tortoise



Who needs Sonic the Hedgehog when you've got Turbo the Tortoise? Platform romps a-plenty in this six-level arcade adventure

New firmware guide!



The long-lamented (long-discontinued) Amstrad Firmware Manual now has a replacement! Read the full review and find out where to get one in *Technical Forum* this issue...

the buyers guide Educational software



You know what they say about 'all work and no play'... well, with the best educational software your child can work and play at the same time!

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...well, five different games, anyway! PLUS a map of that Codies toughie *Spellbound Dizzy*. And it's all in *Cheat Mode*, this month!

serious

games

regulars

ACTION pack



- ***Defenders of the Earth*** **– this one's so tough it drove us *potty*. Can you do better?**
- ***Drehdriss*** **– a *Tetris* clone from Poland (or somewhere) and it's got a *two-player* mode**
- ***Croco Magneto*** **screen designer – the original *Croco* not tough enough for you? Then beef it up with this utility!**
- ***Supersonic*** **– no, not the high-speed hedgehog of Sega (*ugh! – spit*) fame, but a music utility that lets you make tunes for your progs**
- ***Type-ins AA81*** **– We print codes in the mag to help you get them right, but if those 'Syntax error's are still bugging (ha!) you, you can now run June's progs the easy way**
- ***Pokes galore*** **– tons of dirty, low-down cheats for tons of games**

HOW TO LOAD YOUR COVERTAPE

Loading the programs couldn't be easier! Type RUN" (followed by RETURN) and press a key to start the tape. (A shortcut way to get RUN" is to hold down CONTROL and tap the small ENTER key.)

A menu screen will appear in a short time. Select the program you wish to load. Press SPACE to highlight the program you want followed by RETURN to load the program.

Note that BASIC progams (e.g. the pokes) must be loaded direcly from BASIC with the RUN" command.

* If you have a disk drive connected to your machine you'll first have to type ΙTAPE to switch the machine to tape loading rather than disk loading. (The Ι is obtained by pressing SHIFT and @) The computer will load the next program.

program details over the page

Disk owners read this!

If you have a disk drive, you'll only ever have to load from the tape once – all programs are transferred easily to disk.

Insert a blank formatted disk into the drive and the covertape at the start of side one into your cassette player. Connect the REM socket if you have one (6128 owners) – it'll automatically stop the tape in the right places when accessing the disk drive.

Load the menu program in the normal way and select the TRANSFER TO DISK option. Follow the on-screen instructions and press a key when the computer asks you to. It's as simple as that!

If you have problems you'll be asked to rewind the tape and try again. If so, don't panic – follow the advice for tape loading troubles. Still no luck? Then Ablex will replace your tape. See overleaf.

disk offer

Owners of the 6128 Plus are unable to connect a cassette recorder to their machines. If these or any other users would like a copy on disk, simply snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 made payable to Ablex Audio Video Ltd to:

AA83 disk offer, Ablex Audio Video Ltd., Harcourt, Halesford 14, Telford, Shropshire TF7 4QD.

disk 83 TOKEN

1 Defenders of the Earth

complete game

Loading: *Defenders of the Earth* must be run from the main menu. Get ready to turn over and rewind the tape when prompted (the level data is on side 2)

Let's journey back to a time when defending the earth meant fighting aliens rather than planting trees. Yep, this is a game based on the cartoon series starring Flash Gordon and Emperor Ming and their respective pals. Featuring some of the best graphics of any AA covertape game, *Defenders* is difficult with a capital 'difficult'.

It's a simple enough shoot-em-up in terms of design, the only trickiness comes in the sheer weight of enemies. It's actually not as hard as Trenton Webb and Adam W made out when they reviewed it a couple of years ago. You can avoid most of the enemies by keeping your wits to the fore and timing all your jumps really well.

The end-of-level guardians are as hard as lead tubing, mind, and they're not all you have to worry about. There are a few hazards (some locked doors and the odd river) that you can't get past on your own. Pressing '1' will call up a friend with a hairpin or MFI footbridge (as appropriate), but it means hanging around on that screen for a lot longer than it's sensible to do so.

Oh, and you can't really hang around anywhere for too long. Loiter on the same screen for more than a few seconds and an auto-defence system will turn you into person dust. Yikes!

• Defenders of the Earth controls
Use either keyboard or joystick

Q	Up
A	Down
O	Left
P	Right
SPACE	Fire
1	Call for help
H	Pause

STUDIED DEFENCE

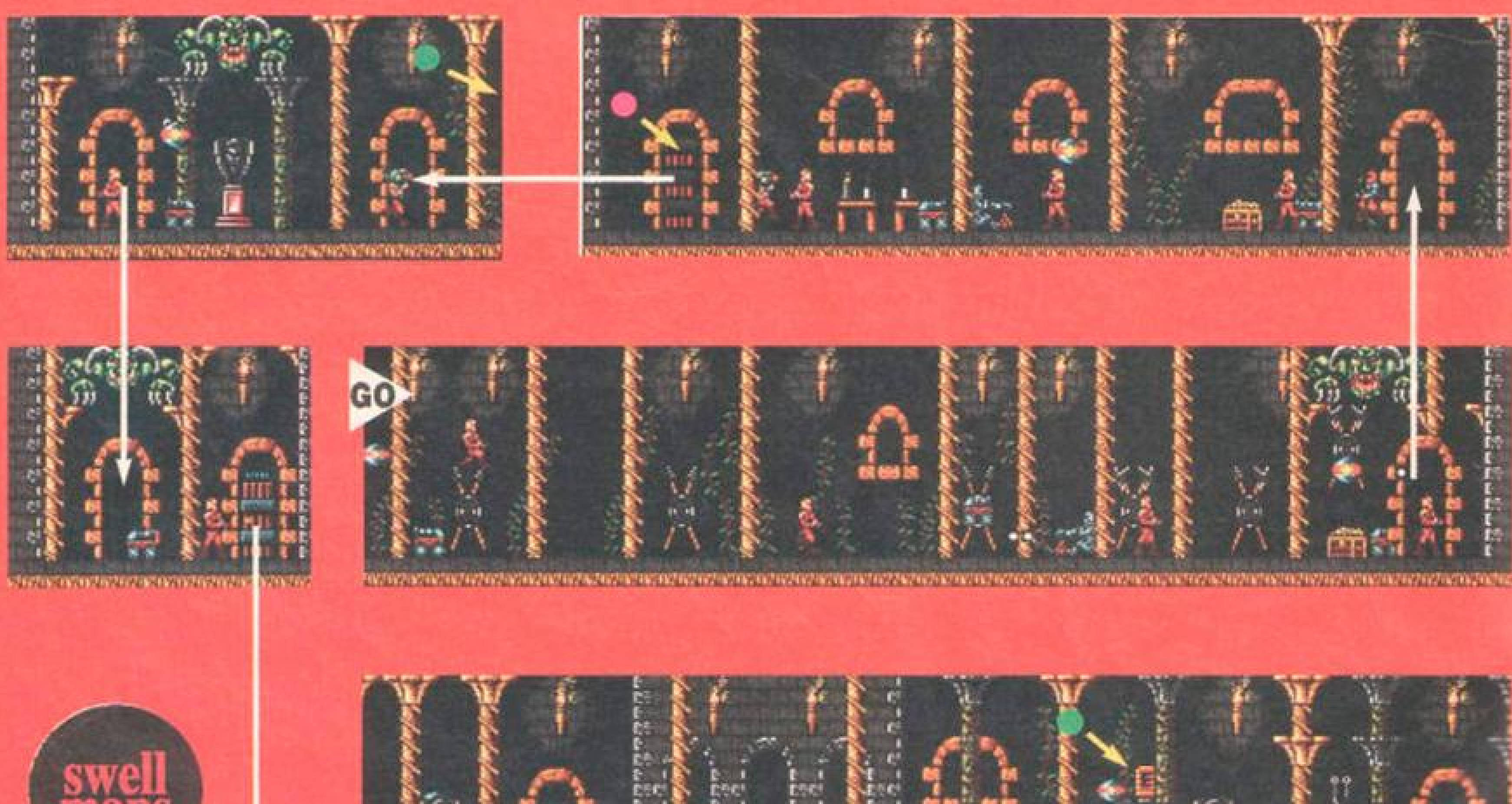
freeze frame

You're the bloke in red (1), the enemies are enemies (2), your energy is flagging (3), you're running out of lives (4) and your friends are doing nothing (5). Nice jump though.

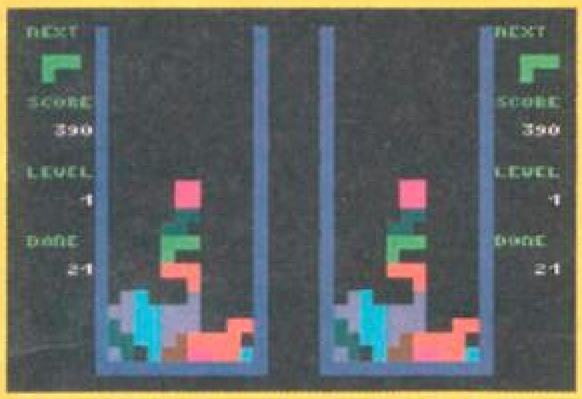


THE FIRST OF TOO MANY...

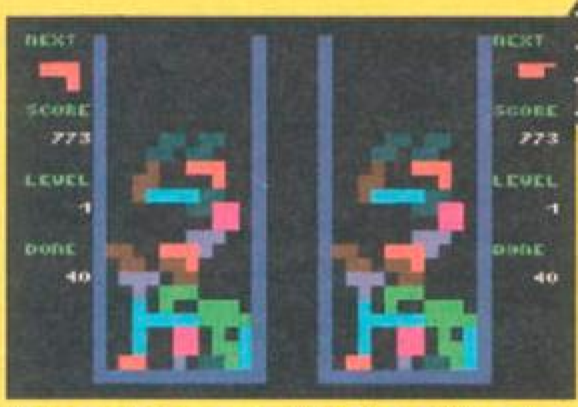
Here's level one in all its glory. What can we say, other than that 'GO' indicates your start point, arrows show you where doors take you, purple blobs indicate hazards you'll need to call for help at, green blobs indicate power-ups and collectables, and the end-of-level guardian is that big grey thing that's going to kill you on a regular basis...



swell maps



■ Er, this is not one of our best performances to be honest. We're messing up...



■ See what we mean? A nice pattern, certainly, but none too hot score-wise.

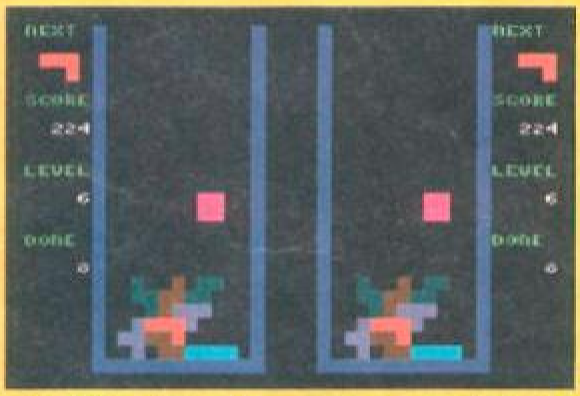
2 Drehdriss

complete game

Loading: *Drehdriss* must be run from BASIC. Type RUN"DD

Good old *Tetris*, eh, it's everyone's favourite block-based moving puzzle that isn't Klax. And lo-and-behold but here comes your caring, sharing *AA*, in association with our chums at Robot PD (2 Trent Road, Oakham, Rutland LE15 6HF), to offer you a PD *Tetris* that is actually better than the commercial release.

It's also worthy of mention for a couple of other reasons. Firstly, it comes from Poland and is therefore the first piece of software from Eastern Europe to feature on an *AA* covertape. Secondly, it's got a two-player mode. While this slows things down a lot – and there can be a few strange side effects – it certainly helps pile on the fun.



■ A little better here, if we can just slot blocks into those gaps at the bottom...

The game itself is so famous that we won't believe you if you say you don't know how to play it. Everyone knows how to play *Tetris* but just in case you're suffering from amnesia – having been knocked out by a falling pigeon, perhaps – check out the Freeze Frame box on the right. The rest of you know the score anyway, just pile straight in.

There are plenty of other versions of *Tetris* that are buzzing around in the public domain. *Drehdriss* is our favourite but if any of you Tetrisheads out there are still dribbling for more, we might chuck another version on the tape in a few months' time. Drop us a line if you think that's a particularly good/bad idea...

• *Drehdriss* controls
Keyboard or joystick control

Player One
CURSOR KEYS ....Directions
[ ] ....Rotate

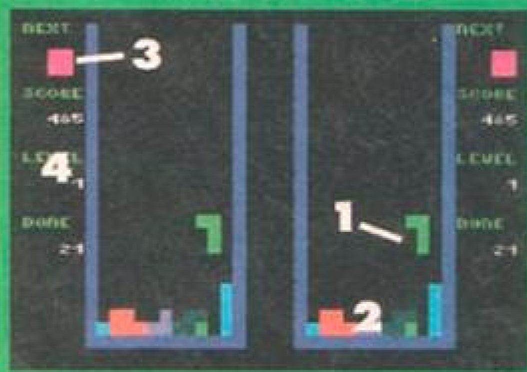
Player Two
W...Up
Z ....Down
A...Left
S...Right
1...Rotate

CTRL + Q ....Quit

freeze frame

IN A SPIN

At the moment you're in command of that block in mid-air (**1**), you can move it from side to side and rotate it. The idea is to try and get it to fall into place in the melee below (**2**) such that a horizontal line or two will be formed. When a line is complete it will disappear and the blocks will drop down. (When the pile reaches the top of the screen you're dead.) At the side of the screen it tells you which shape is next on the way (**3**) – this is dead useful if you're in control enough to be able to plan ahead. The stuff about score and levels and so on (**4**) is so obvious that we're not even going to explain it. And let's face it, we explain some pretty obvious things...



history lesson

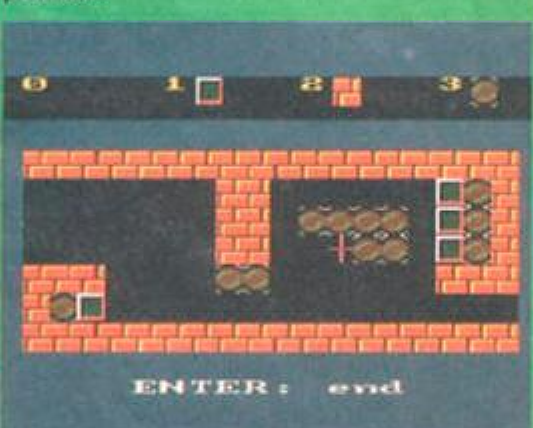
BLOCKS FRENZY

Tetris was the brain-child of a 30 year-old Russian researcher named Alexey Pazhnitzov. The game was originally programmed by 18 year-old Soviet student Vadim Gerasimov. Little did this double act know that their baby was to become the most famous computer game of all time. Its simple, addictive gameplay has enthralled millions. (It's the free game with Gameboys).

As for Alexey, he went on to dream up a few games (including updated versions of *Tetris*, such as *Welltris*) but none have caught on in the way that *Tetris* did. Well done Alexey and Vadim, you may be commies but you're welcome to come round to AA Towers for tea any time you like.

CROCO (NOT-O)

So where's the *Croco Magneto* Screen Designer then, you bunch of West Country crooks? Ah... well actually we encountered a last minute problem getting the program to work from tape. Sorry. We've currently got our technical experts working night and day to find a solution, and the program will appear on a covertape very, very soon. We promise...



TAPE WON'T WORK?

We go to great lengths to make sure that our covertapes work properly. They are checked directly after the master copies are made and then again once Ablex, our duplicators, have run off a series of test tapes. Only when we give the final go-ahead are the tapes on the front of the magazine actually produced.

However, a few of you may still have difficulty. If so, the problem may be with your equipment. Try the following:

- Try loading at several different volume levels if you're using an external tape recorder. Computers can be fussy about the volume they will load at.
- Clean the tape heads. This can be done with any commercially available cleaning kit. Or else use a cotton bud soaked in alcohol. Gently rub the surface of the heads and pinch roller to remove that layer of accumulated grime.
- Adjust the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Rotate it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.
- Sometimes the tape spools can jam or stick at a critical moment. Check the spools in your cassette rotate freely, if necessary giving the casing a slight tap against a table edge just to make sure.

If, after trying the all of the above, you still can't get the tape to load then you can return it for a replacement. Send the tape, along with a brief description of the problem with an SAE to:

AA83 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt,
Halesford 14,
Telford,
Shropshire TF7 4QD

3 SuperSonic

complete program

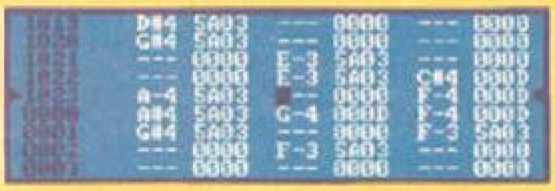
Loading: *SuperSonic* is on side two of the tape and must be run from BASIC. Type RUN"SONICHLP.BAS to load up the detailed instructions file, or (if you're a bit rash) RUN"SONIC.BAS to leap straight into the program. Things will go very yellow for a while but don't worry about that

Yo, make some noise! (Whistles, screams, whoops.) Let's show some respect for this totally safe CPC music program. (Cheers, punching of air, monkey noises.) Big shouts go out to ChaRletTroniC, the Conspiracy posse and Robot PD in the area. (Shrieks, waving of hands, puzzled looks.)

If it's CPC tunesmithery you're after, you've come to the right place, because we've got a neat composer for you this month.

SuperSonic really is excellent. It allows you to write your own tunes, *Equinoxe* style, using all three sound channels. You can then compile these into a form in which they can be used from within your own BASIC and machine code programs. As well as stonking little party tracks, you can also knock up a title tune for that game you're writing. Even if you're not into any of that, you have to admire it all from a technical aspect.

We're not going to go in to detail about the program here: suffice to say that there is an extensive DOC file included and you can work most of it out from the controls listed below. Get ready to... make some noiii-iiii-iiise. (Coughs, embarrassed looks, knowing smirks.)



• *SuperSonic* controls
Get yo hands on these keys:

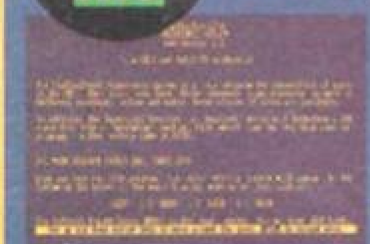
CURSOR KEYS	Move cursor
LOADS OF KEYS	Play notes
CTRL + UP	Move to top
CTRL + B	Move to Beat no (enter)
CTRL + O	Change octave
CTRL + E	Alter volume envelope
CTRL + T	Alter tone envelope
CTRL + V	Alter volume
CTRL + N	Alter noise envelope
COPY	Change note to new settings
ENTER	Empty beat
CLR	Erase note
TAB	Repeat
CTRL + C	Enter BASIC command
CTRL + R	Alter speed
CTRL + S	Save file
CTRL + L	Load file
CTRL + Z	Save settings
CTRL + X	Load settings
CTRL + V	Cut section
CTRL + A	Paste Section

...phew!

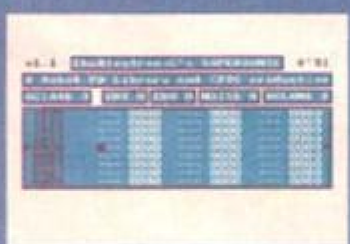
THREE TO MAKE SOME NOISE...

disk file

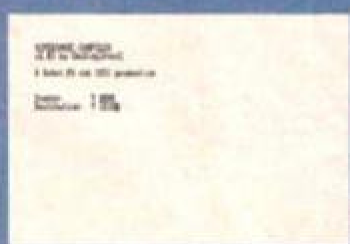
Disk file? Don't worry, it all works perfectly from tape. We just, er, haven't got a 'tape file' logo yet. Here's what you get...



SONICHLP.BAS
This program loads up a DOC file that provides extensive instructions on how to use the program.



SONIC.BAS
The main program: a brilliant music composer that takes the CPC sound chip to its limit. It's easy to use, too.



COMPILER.BAS
A neat utility that compiles your compositions into a format you can use from within your own programs.

5 Type-ins

readers' programs

Loading: The Type-ins are on side two and they must be run from BASIC. Type RUN" and the relevant filename (printed in bold below)

GRADISK.BAS Londoner R M Friend is certainly our... um... friend (geddit). Why? Because he's written this brilliant disk scanning utility, that's why. Tape users can run it too (but not use it).

HEYJUDE.BAS Young Paul Roberts of Warwick is top of the pops at AA Towers with this brilliant version of the Beatles classic.

PUZZLE.BAS A number sliding things, courtesy of Thomas Lovell of Peterborough. Nice one Tom.

6 Pokes

games pokes

Loading: The pokes are on side two and they must be run from BASIC. Type RUN" and the relevant *filename* (printed in bold below). See Cheat Mode (page 38) for more details on how to use these pokes

BOUNDER.SM Infinite lives for Bounder on tape.

BUBBLE.SM Infy lives and a level select for the Hit Squad version of Bubble Bobble.

RENEG1-T.SM Infinite lives on the urban punch-em-up Renegade (tape).

RENEG3-D.MW Infinite lives and time on the disk version of Renegade III.

RENEG3-T.SM Cor, and the same again for the tape version of Renegade III too.

DRAGON.MW A wide range of cheats (infy energy, time, lives etc) for the ever-so-violent Dragon Ninja on disk.

GRYZOR.MW Infinite lives and retained weapons on Phil Howard's game Gryzor (disk).

TERM-TV.AP Infinite lives on Smash TV and invulnerability on Terminator 2 (both on disk).

reaction



"Schools out for Summer," sang Alice Cooper all those years ago. Providing he was singing around this time of year, he was right. Good old Alice, eh? ADAM PETERS, meanwhile, has soaked himself in sun-tan lotion, stocked up with ice pops, and is now lying on the sun-bed sorting through your mail. Write to him at: Reaction, Amstrad Action, 30 Monmouth Street, Bath BA1 2BW. You could win some money (if you're lucky)...

COVERTAPE HASSLES

When I bought the June issue of *AA*, with The *Addams Family* demo on the covertape, I thought the *AA* gang had done it again with another ace tape. Then I got home and discovered that it needed 128K to run. I was so mad.

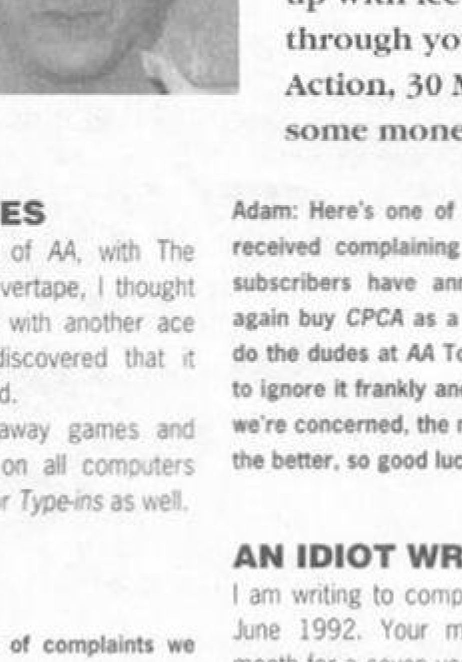
If you are going to give away games and demos, make sure they work on all computers instead of just a few. This goes for *Type-ins* as well.

Daniel Truen
Aylesbury, Bucks

Adam: This is one of a number of complaints we received about the 128K only demo of *The Addams Family* on the *AA81* covertape. The fact of the matter is we didn't find out that *The Addams Family* was 128K only and, worse still, so badly coded that it would take up a whole side of the tape, until the program was in the hands of our tape compiler. Ocean didn't tell us in advance, and by then it was too late to get anything else in.

We would have included the demo anyway (for the benefit of our 128K readers), but would have tried to get an extra full game (better than *Forbidden Planet*) on. As we've said, though, by the time we found out it was too late. Sorry.

As for *Type-ins*, it's being taken care of even as we speak.



■ CPC Attack threatens to punish readers with an AA subscription... our readers are not amused.

AA DISSED SHOCKER

Will you please forgive me. I have sinned. I bought a copy of *CPC Attack*. You will be pleased to know it is totally rubbish and will be no competition to you. I started to read the rules in their competition page, and when I got to the bottom I found something very disturbing (about people who cheat).

I quote: "They may also be punished with a free subscription to *Amstrad Action*." See what I mean! If you go around to beat them up please tell me as I would love to help you!

Matthew Howley
St Agnes, Cornwall

Adam: Here's one of over a dozen letters we have received complaining about that quote. A few *AA* subscribers have announced that they will never again buy *CPCA* as a result of this attack. But what do the dudes at *AA* Towers reckon? We're just going to ignore it frankly and hope they grow up. As far as we're concerned, the more CPC magazines there are the better, so good luck to them.

AN IDIOT WRITES

I am writing to complain about your covertape for June 1992. Your magazine is purchased every month for a seven year old boy, as soon as we get the magazine we transfer the tape to disk for use on his CPC6128. This month I was not at all happy with the results. Firstly in the *Forbidden Planet* Hall of Fame there was the phrase "Don't give a Damn", not what I would want a child to think was the correct way to speak. This was quite mild when compared to what I found when I used my copy of *Knife+*, that I use on my PCW9512, to alter the file 1.BIN. Apart from the thinly disguised sentence about a rampant rhino (*! – Adam*) I found phrases with the words SEX, F*** and S*** – ie "Please S*** somewhere else". These are certainly not words most people would want a child to be familiar with and I would be surprised if many adults would want to see them as part of a game.

I'm sure that if these words and phrases had been put into PRINT statements in a BASIC program for one of the *Type-ins* you would not have printed it. Why then do we have to put up with them on your covertape?

Mr M A Bradley
Radcliffe-on-Trent, Notts

Adam: Here's an address for you, Mr Bradley: Points of View, BBC TV, Television Centre, Wood Lane, London W12 8QT. You could start by complaining about them screening *Gone With The Wind* at 2pm on New Year's Day. Lots of children could have been corrupted by the language (*"Frankly, my dear, I don't give a damn"* – Rett Butler).

You really have no business interfering with the code, Bradders. Had you actually been competent enough to understand what was happening, you'd know those words were there because the program scans for them as keyboard entries. This is so that when anyone swears in the high score table, an apt response is printed. It is the person playing the game, and not the game itself, that has to use those words for anything to happen.



■ **Bad language in *Forbidden Planet*? Only if you swear yourself.**

No doubt you're the sort of person who complains about swearing that programmers leave in the code for hackers to encounter. Maybe, just maybe, you shouldn't be hacking into the code in the first place. And I hope you're not teaching that seven year old to hack! Heaven knows what trouble (and swearing) he'll encounter. You are a professional idiot Mr Bradley, and I claim my five pounds.

P.S. We get quite a few letters from loonies, but most just get thrown straight in the bin. Just for a bit of fun, though, we're going to run an Idiot of the Year compo. This is the first entry. There'll be three more featured in *Reaction* over the next three months. At the end of that, we'll be asking YOU to send in your votes for the official *AA* Idiot of 1992. We'll send the winner a trophy of some sort. But please, however tempting, don't send in any votes now. Wait till you've read the other three entries...

maryanne's mail



Well it's been a month full of surprises here at AA, the best being my promotion to Art Editor of Sega Power. I'm so excited I've talked about nearly nothing else since, that's why Adam has decided to let me answer my mail again this month to shut me up for a while.

"Dear AA (not Maryanne), Why don't you sack Maryanne? If she's that interested in cute fluffy animals she should work for the RSPCA, not AA, and I agree with Naomi (AA81) that you should shoot her. And Hugo's a daft name for a teddy. It should be called Cedric, like mine." Emma Bavetta, Lincs

You'll be pleased to here of my imminent departure then Emma. I wasn't aware that caring for the welfare of animals was a sacking offence! I'll have to check my contract for that clause. And as for calling a teddy bear Cedric, that's not a very nice name for a teddy bear. It'll probably grow up to be really evil with a name like that. And anyway, I didn't choose Hugo's name, I let him choose his own name.

"How come Maryanne is spelt with a small 'm' in Maryanne's mail? After all, I think you should have your very own magazine and if you did have your very own magazine it would be so brilliant that it would cost £100,000,000 for each issue. As for Naomi whose letter appeared in AA81; Naomi why don't you go suck an egg, because Maryanne is the most brilliant person in the whole universe." Thomas Payne, Wales

Thank you Thomas for a very nice letter. There's no real reason why my name has a small 'm' in Maryanne's mail, only that Ange thought it looked nice that way. Also I'd like to thank you for your recommendation, it would seem that Jane the publisher agrees with you, I have sort of got my own magazine now. It doesn't cost £100,000,000 per issue though, it's a bargain at only £1.95. Don't be too hard on Naomi, she has suffered enough (see below). You're brilliant too, Thomas.

"Dear Maryanne and Hugo, The day the June AA appeared in the shops, I got a phone call from three of my (ex-) friends. They told me they had written a horrid letter to you, using my name, because I said I agreed with everything you said and they didn't.

"They told me what they had put and then said that if I told you they'd torture Beebee (my Forever Friends teddy) and fire catapults at my kitten, Snoodles. But I have been brave and told you, because I was horrified and shocked to see the letter, the mindless, violent, putridly disgusting letter, had actually been printed. I don't know what the editors must have been thinking of to have put it in the mag.

"I must say that Hugo, dear, sweet, cuddly Hugo, needn't be scared; they couldn't put him in prison.

"Please, please print this letter (the people concerned know who they are) to bring my mindless, violent (ex-) friends to shame. They are the sort of people who buy baby bunnies, then feed them to snakes. I don't like them any more, and I don't suppose you do either.

"PS I don't like shooting stuff in Rodland either. Do you like the colour pink?" The Real Naomi, Macclesfield

Hello Naomi, Beebee and Snoodles. I am terribly sorry to hear what you have suffered at the hands of your so-called friends. I do hope you are feeling better, and I am glad you have felt able to write to me about this unfortunate misunderstanding. You mustn't hate them though Naomi, they are to be pitied. I think we've given them enough attention now so let's forget the whole episode. I'm glad you don't like shooting the creatures in Rodland, and I love pink (but pale blue is my favourite colour). Thank you for your letter and give Beebee and Snoodles a kiss from me.

"Hello Again! David here, from AA78, again. I've tried my luck with the girls in Orpington, as you suggested, but I've had no joy. Any further advice? Better still, how about you relenting and agreeing to marry me?

"I reckon that if you replace all the mug shots of Rod and Adam with pictures of you stroking fluffy animals, AA's circulation would soar. How about it? After all, you are part of the art department..." David Rand, Orpington

David, I am sorry hear you've been unlucky in finding a nice girl, maybe you are trying too hard. As for advice, just be yourself; be kind, complimentary and polite, and smile a lot. They'll be falling over each other to get to you, as soon as you stop trying. Thank you very much for your proposal, Adam thinks you're a few sandwiches short of a picnic, either that or I slipped you a fiver. Whatever, I'm sure you can do a lot better than me.

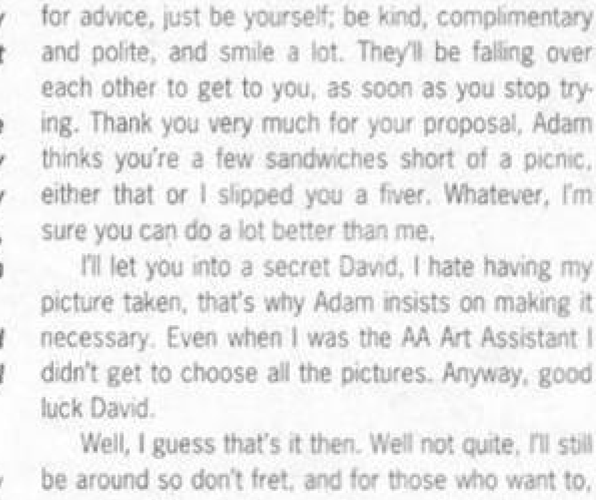
I'll let you into a secret David, I hate having my picture taken, that's why Adam insists on making it necessary. Even when I was the AA Art Assistant I didn't get to choose all the pictures. Anyway, good luck David.

Well, I guess that's it then. Well not quite, I'll still be around so don't fret, and for those who want to, you can still write to me. I'm sure if I ask Adam nicely he will pass your letters on. See you all again soon. Bye.

Lots of love,
Maryanne
xxxx

The AA Conspiracy...

What's going on? Just take a look at this *AA* group shot taken less than one year ago. Notice something? That's right, out of the SIX people visible in this photograph, only TWO remain. Is there some pattern to these disappearances? From left to right in the group shot:
GONE **CHERYL BEESLEY: Cheryl now works on sister publication *Amiga Format*. Why?**
SURVIVING **ADAM PETERS: Adam always sits where he can watch the door. Why?**
SURVIVING **ROD LAWTON: Rod never enters the office without counting the people in it. Why?**
GONE **ADAM WARING: Adam has now left Future Publishing, and the country. Why?**
GONE **ANGEL NEAL: Angela has moved to Brighton. Why?**
GONE **MARYANNE BOOTH: Maryanne has been moved on to a Sega Magazine. Why?**
Theories on a postcard please to: AA Conspiracy, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.





How to write best-selling games

DR BERTRAM X FEGG built himself up into such a rage this month that his letter exploded in transit and arrived at our office in one of the Post Office's "Sorry we're so crap" plastic bags. Totally true, that. We wouldn't lie about an exploding letter.

You couldn't be bothered to run a PD library, and you still don't understand your DTP package's manual, so that puts the fanzine straight out the window. So how are you going to earn your millions? Easy. Write a chart-topping game.

The money you can make from these things is colossal. For example, take the author of *Tetris*. Before he wrote what is possibly the world's best-selling game, he was a poor impoverished Russian in a university studying computer science. After he sold his masterpiece to the capitalist running-dog imperialist West, he had enough roubles to buy himself two pairs of Levi's and an Amstrad stereo (circa 1978, complete with that authentic crackle whenever you adjust the volume) on the black market. He hopes that with the release of his next blockbuster, he'll be able to afford a loaf of bread.



■ Adam sells another copy of *Lost Caves!*

Closer to home, take the case of AA's very own Tech Ed, Adam Waring. Before he wrote the infamous *Lost Caves*, he was eking out a meagre existence on £30 dole a week. The enormous sales of his game pushed his earnings up to a massive £32 per week, so much that he had to come and work for *AA* to have enough money to fund his infamous social life.

Actually, games don't have to be any good to earn you any money. *Lost Caves* might have seemed awful, but comparing it to *Outrun* is like comparing Ayrton Senna's driving skills to Maryanne's, and just look how much money the programmers made from it. The secret is to find a formula that will sell.

Once more, it's Fegg Enterprises to the rescue. Fegg Enterprises will sell you my new program, *Small Round Cute Thing Construction Kit*, for only £1499.99. Although this might seem a bit expensive, it will in the long term make you more money than, erm, writing articles for *AA*.

The theory behind it is that CodeMasters has made loads of money selling games starring Small Round Cute Things (*Dizzy* and *Seymour*). All these games basically consist of a Small Round Cute Thing somersaulting through a flick-screen, Spectrummy landscape, picking things up and using them in the right places. So you can make equally huge amounts of money by drawing your cutesy hero, designing a few screens with the odd monster floating about the place, thinking of a few puzzles, and feeding this lot into the *Small Round Cute Thing Construction Kit*. It's not as if doing this is difficult, either. To draw the hero, simply draw a circle and put two eyes, a nose, a mouth (preferably in a stupid smile) and some feet on it. The puzzles are simple, too, and the *Construction Kit* even comes with some to get you started. For example: Splud (our hero) has been locked into an Easter egg factory for a weekend. Can you save him from being made into a round-ish hollow chocolate ball? And more to the point, do you really want to?

If you can't stand this sort of game, there's still hope for you. All you need to do is to worm your way into the favours of a major software house, so that you might be in with a chance of getting the contract to program one of their celebrity tie-ins. There is one simple rule for these: the only things which should bear any relation to the celebrity are the loading screen and the title music. For example, if asked to write Neil Kinnock (the Computer Game), you could get away with programming something about a successful politician who actually wins elections – although possibly that's stretching credibility a bit too far. Or how about the coveted *Canary Wharf* licence, where your aim is to fill the building with tenants before your money – whoops, time – runs out...

The other major league money-spinners, of course, are film tie-ins. However, be careful here. Just because the acting in your chosen film is appalling isn't an excuse for lousy programming – "honest boss, I was trying to make it like the real film" – although in the past people do seem to have got away with this. Similarly, even though the film might look like this when they show it on the TV, restricting your game to a narrow band across the middle of the screen with huge black borders at the top and bottom isn't going to recommend you for future programming contracts either.

Once you've done all the hard work of writing your game, the only bit left is to package it and sell it to a software house. To make sure that those nasty evil pirates don't do you out of your hard-earned cash (although I'd be surprised if there are any pirates left after those FAST ads that appeared in magazines a while back – they must really have got people scared, I bet all the pirates in Britain stopped overnight after seeing those), you need to protect your game against copying. Some companies offer a service where for one grand they'll make your game so that it can only be copied by a £10,000 machine (obviously those rumours I heard about someone doing it with a three-inch drive connected to a £300 Amiga are false, then), but Doctor Fegg – as always – has the answer, for the bargain price of five hundred quid. The new system is called "Fegglock", and simply consists of a message on loading that says: "Doctor Fegg knows where you live". Now that will scare people more than a pathetic advert with a picture of a policeman's helmet...



■ You could get rich writing games. Oh yes indeedy. (And pigs might fly.)

• Next month Dr Fegg might be in the mag or he might not. It all depends on what happens with the aubergines.

YOU KNOW THE COMPUTER YOU'VE ALWAYS DREAMT ABOUT?

part two of 3

hold the front page

Just when you thought it was safe to turn to page 12 without encountering the second part of our DTP series, ADAM PETERS turns up and your worst fears become flesh...

So you've got your words. Now you want some pictures and a bit of a layout, right? Magazines that are just wall-to-wall text might be popular with a few techieheads, but you really need to start piling in the illustration to make the mag look half decent.

There are three different types of illustration you can use in your mag: photos, drawings and design elements. Let's look at each in turn and what you can do with them:

1) PHOTOS Ripping photos off from other magazines, books and newspapers is well dodgy and illegal, but it goes on all the time. Not only is it cheap (providing the person who took the photo doesn't spot it and demand a copyright payment), but photos from other publications will have already been 'screened'.

Screening is a process that turns photos into collections of little black and white dots (look closely at any of the black and white pics in this mag to see what we mean).

Once processed in this way, photos will reproduce a lot better when printed or photocopied. Try photocopying an ordinary picture (especially a colour one) and you could end up with something with no greyscale (only black and white) or loads of smudges, and the whole thing will be a horribly blurry mess. Screened photos can be photocopied without losing any of the detail or quality from the original.

If you're using photos you've taken yourself, and you really want them to look good in the magazine, it's well worth going down to Prontaprint (or somewhere similar) and getting your photos screened. It costs about £10-15 per A4 sheet's worth (approx 3-4 photos), and it works with any photos at all.

2) DRAWINGS There are two different types of drawing; ordinary, hand-drawn stuff (cartoons, illustrations etc) and computer drawn stuff (including that old fanzine standby: clip art). Anything hand-drawn needs to be good, so if you're crap with the old felt-tips get a talented chum to do the drawing for you. No-one cares what the text is like, but if the cartoons are naff your friends and relatives will ostracise you. (With a corkscrew.)

Clip art is quite useful in helping to liven up pages you can't find any other illustration for, but using it to excess – and in wholly inappropriate places – is a bit sad, though a lot of fanzine editors seem to go in for that approach. There is a lot of clip art around on the PD scene, and it's obviously a lot less hassle than doing your own drawings. But remember: laziness is the enemy of quality, as we at *AA* know all too well. (*Speak for yourself – ed.*)

3) DESIGN ELEMENTS What on earth are they? Well, they're the third type of illustration and they're basically just the shapes and such like produced on a DTP package; boxes, circles, frames etc. Most people don't think of these things in the same way as they think of photos or cartoons as illustration, but these design elements are an important tool in livening up pages.

Instead of just having one long wodge of text, it looks so much nicer to have a few sections pulled out and boxed off separately. Little snippets of info (e.g. the date the next issue is out) look a lot more interesting when the text is dropped in a circle. Flick through this issue of *AA*, and any other mags you might have lying around, to see some of the techniques professional designers use to make pages look fab and groovy.

There are other things to bear in mind when laying out pages. For a start, when deciding on the order of pages, chuck things that look good together on spreads. For example, if you've got a single page article that is pure text, place it alongside a page that is heavily art-based (a cartoon strip, for example). This is very much a case of trying things out and trusting your own visual judgment. It's a good idea to leave the page numbers (if you're going to have any) till right at the end though. Work out the exact order of the pages once they're all done. These can be juggled around where necessary, till you're happy with it.

Another tip: if you want to go for that 'professional' look, be sparing with the number of fonts you use. There is always a temptation to use every font you've got at your disposal, but take a look at any high street mag and you'll see the pros only ever use two or three different fonts for the entire magazine. Normally it's one font for body text (e.g. what you're reading now), one font for box-outs (e.g. *Using the technology*, below) and one font for headlines, with other things (intros, captions etc) usually one of the same fonts at a different size.

Next month's (final) instalment looks at printing/photocopying and distribution. Be there or be a quadrilateral with four equal sides.



Using the technology

So do you need an art package to produce illustration for your fanzine? Strictly speaking, no. I always found that DTP packages had quite enough art functions to produce all the little drawings that I needed. The problem with art packages is that they're mainly concerned with producing things in full colour. Colour printing is so expensive that it's not really practical, so you'll only be wanting black and white illustrations anyway.

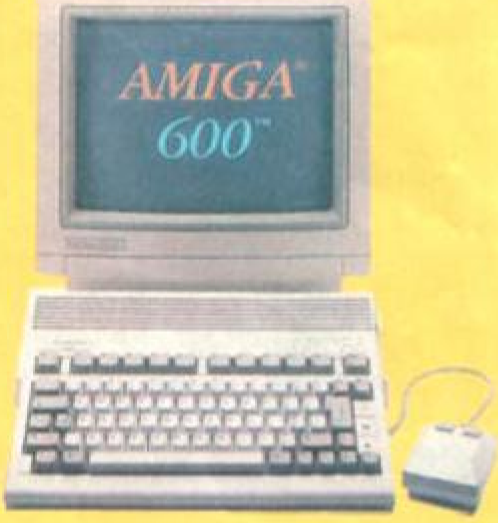
If you do want to use an art package to produce some really detailed mode 2 pics, our *Buyers' Guide* last month didn't hesitate in recommending *OCP Advanced Art Studio*. People with only 64K at their disposal, or no money for additional purchases, could do far worse than use the excellent PD prog *GPaint* that we featured on our May covertape.

As far as desktop publishing goes, we covered the options in the *Buyers' Guide* two months ago. If you're a tape user, you can go with either *Pagemaker Plus-1* by Alan Scully (*AA76* covertape) or *Page Setter 64* from SD Micros. If you've got a disk drive you make use of Richard Fairhurst's brilliant *PowerPage* (on last month's covertape) or – if you've got 128K at your disposal – the totally stonking (if expensive) *Stop Press* program.

Stop Press has the most functions and facilities, but *PowerPage* is a more than worthy alternative. *AA*'s PD and fanzines maestro Tim Blackbond actually rates *PowerPage* as the better of the two!

Other things you might want to get into are scanners, which allow you scan artwork into your computer where you can re-size and edit it to your heart's content. Ring Dart Electronics on 0502 513707 to ask about its scanner. Users of *MicroDesign*, an excellent clip art led design package, can make use of the scanning service offered by a company called Subtle Changes (041-422 1601).

WELL, STOP DREAMING



THE NEW AMIGA 600 HAS ARRIVED





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the french connection



We're always going on about the French CPC market and how wonderful it is, aren't we? "Prove it!" you clamoured. "We will!" we retorted, and hopped on a ferry to Boulogne, just two hours from Dover, to check it out *personally*...

Crikey, seems a bit of a palaver, doesn't it? Going all the way to France just to buy some software? Well maybe it's not as daft as it seems. Did you know (for example) that the ferry crossing from Dover to Boulogne takes only 100 minutes? Well you do now. Not only that, it's pretty cheap, too. Foot passengers can zoom across the channel for just £23 each (return), or just £12 for kids. (Actually, Adam and Rod went for just £12 each – P&O must have made a mistake.)

So, provided you don't live too far away from Dover, a trip to Boulogne makes a pretty comfy day out. We took the 10:15 from Dover, which arrived at Boulogne at 11:55, then came away again at 7:15, arriving back at Dover at 8:55. The ferries leave at 2-hourly intervals at those times of day, so you could come home earlier if you wanted to.

The whole point of going over to France you see, as far as CPC owners are concerned, is that the French give the machine the prominence it so richly deserves. We've said lots (and lots) of times that the CPC was the best-selling format in France, and here's the proof. In the Auchan hypermarket just outside Boulogne (the equivalent of an Asda) there were shelves packed with CPC releases – we counted over a hundred.



■ **Boulogne gives you a taste of the exotic continental life – and it's so easy to get to!**

Most of these were games available in the UK. Or at least, games that have been released in the UK. The point is, as so many of you have been writing in to tell us, that you simply can't get them in the shops now – especially on disk.

The good news is that the Frenchies love disk games. In fact, most software sales over there are on disk. For some reason no-one has ever been able to fathom, the French are far keener on disk machines, even though tape machines/games are freely available. (Although part of the reason may be the price of the hardware – the 6128 Plus was on sale in the Auchan store for the equivalent of £300!)

The Auchan store also featured a system some UK stores have dabbled with – and then abandonned – in-store duplication. The system works

Things to do... Things to do... Things to do... Things to do...



1 GET A PASSPORT

There are three different passport varieties you can get for your trip to sunny Boulogne. You can get a seriously heavyweight ten-year passport (useful if you're going to be doing lots of travelling in the future), a one-year 'Visitors Passport' (which we got, 'cos we're a bit weedy) or a short-term Excursion jobbie, which is cheaper still but only any good for one-off trips. If you're travelling as a family, you can get all sorts of family-type passports which the nice people at the Post Office can explain better than we can. You don't need any visas or jabs (for Boulogne, not the Post Office).



2 BOOK YOUR TICKETS

Ferry tickets are available from any travel agents. You are supposed to book a month in advance, but we didn't. We managed to get tickets just ten days before we wanted to go... but then we were 'Foot Passengers'. We weren't taking a car over (for a shopping trip to Boulogne you don't need one), so maybe that made a difference. Our travel agents had a fancy computerised booking system that let them check there were spaces right there and then. It's not as easy as getting a train or a bus, but it's all a lot less fiddly than flying. (And a lot cheaper, for that matter.)



3 CHANGE SOME MONEY

There are plenty of places to change currency, both at the ports and on the boat. There's no rush, either. If you haven't got time to change money at Dover or Boulogne, there's a bank on the boat – and you've got a 100-minute crossing to sort yourself out. How much do you change, though? 'Buying' currency always costs you a certain percentage of its value. Contrary to popular myth, you can change coinage. The bank on the boat would change anything down to 2F coins (about 20p). So don't worry about coming back with loads of unusable French dosh.



like this: you go through the shelves of software, choose the game you want, take it up to the counter and get it duplicated on to whatever format you want. This system was used for all the budget games in the store (full-price games were sold separately), and is a great way of saving space as well as offering maximum choice. Why? Because most games are released on several formats, but with in-store duplication you only have to display one box for each game. The box inlay contains a list of the versions available, and these are colour-coded so that you can quickly see whether the game comes in a version for your machine.

There's even better news than this, though. The UK has a very strong budget market, but – annoyingly – budget software houses never release games on disk. If you've got a 6128 but like (or can only afford) budget games, you have to put up with loading from tape all the time.

French CPC fans have it easy. You see you can have your game duplicated on to disk instead of tape, if you want to! The price is higher, but still far, far below the price of full-price disk games.

Some games have loaders that prevent them from running from disk, but most in the Auchan store were available on either format. Hurrah!

Software prices were – perhaps surprisingly – very similar to those in the UK. Budget games on tape are around £4, full-price tape games are £12 and full-price disk games are £17. The good news for all those fed up with indifferent arcade conversions and interminable film licences is that budget games on disk are £7...

Only a few of the games we saw weren't available in the UK – including an Amstrad version of *Chessmaster 2000* from French software house Ubi Soft. What the French *do* have, however, is a huge supply of games... and you can get most of them on disk!



Other things to do in Boulogne

There are other things to do in Boulogne apart from shop for CPC games. Well, let's face it, there have got to be if you are to stand any chance at all of getting your folks to organise the expedition in the first place...

THINGS FOR FATHERS:

The ferries are all equipped with fully-licenced bars, there are loads of licenced brasseries in Boulogne and the supermarkets contain numerous shelves groaning under the weight of stupdendously cheap beer (we're talking 25p a bottle here). Watch out for cauliflower ears, though, since the wife will notice all those sidelong glances at those astonishingly attractive French girlies. Other points of interest include counting the number of cars with UK plates (and reading them all aloud) and practising dodgy French on bus drivers and waiters who always answer in English anyway.

THINGS FOR MOTHERS:

There are tons of clothes shops and places to buy pongy perfumey stuff (you can get duty-free perfume on the boats, too). All the clothes shops in Boulogne look incredibly chic because they have sexy French names (which probably translate to things like 'Togs-u-Like' and 'Boulogne Charity Shop). Do watch out for a 'Naf-Naf' shop, though... So what is there for mums to do instead of shopping? Ah, what indeed... you don't think they came over to check out the sights, do you?

THINGS FOR SISTERS:

Sisters will usually hang out with their mums, descending on the clothes shops in a flurry of waving arms, waving cheque books and releasing assorted hoots and howls. Sisters may also stand/sit around gazing at the French boys and being unutterably sickening. There is always the faint hope that a sister will run off with some swarthy French lothario, but the parents are – regrettably – all too likely to step in at the last moment.

THINGS FOR BROTHERS:

Older brothers will usually hang out with dads, while younger ones will, almost certainly hang out with you. If you can leave a younger brother on the boat, all the better. Otherwise, you will have to put up with him dragging round behind you all day wanting sweets, toilets, mum and dad and to go home. There's not much you can do about this except point him at the toy dept in the Auchan hypermarket while you take a look at the CPC stuff. Or there's always Boulogne's rather spanky beach. If that doesn't keep the little blighter happy, there's always the Centre National de la Mer where, with any luck, he'll get eaten by a shark.

THINGS FOR AUNTS/UNCLES/ GRANDPARENTS

There are lots of signs to Dunkirk to point out, and lots of reminiscences about Hitler, the Blitz and Jack Hawkins. The pavement cafes are great places to complain about the price of the coffee and the unavailability of tea (it spoils their fun when they find out they can just ask for *thé*). Ther region's 'best-preserved citadel' can be found in Le Haut Ville at the top of the main street, which is bound to be a good bet for oldsters. Other sights include the basilica of Notre Dame (not as big as the Paris one, though). Uncles and grandads can also browse through the 'tabacs' trying to buy Old Holborn, while grans & aunties can stand in the gutter waving their sticks at passing Citröens and being beeped at.

Things to do... Things to do... Things to do... Things to do...



4 GETTING TO DOVER

Dover is a pretty easy place to get to, thanks in no small part to the M25. Depending on where you're coming from, you may have to make allowances for traffic at certain times of day, though. We travelled anti-clockwise in the morning (from where the M4 joins to the Dover turn-off), when most people are travelling anti-clockwise – we had no problems. In the evening we were travelling clockwise, but long after the rush-hour was over. We had no problems either way. When planning your journey time, allow for an average speed of around 60mph (unless you're an old granny).



5 PARKING THE CAR

The short-term car park at Dover (that's the one you'll want) is none too huge, but wasn't that full when we arrived. (This wasn't during the school holidays, though!) Unless you've driven to Dover before, finding the car park won't be easy. You'll arrive at a row of identical-looking gates and see lots of notices that don't seem to apply to you. Expect to be redirected at least twice, and make sure the guys on the gates know you're foot-passengers. OK, we'll tell you... the lane for the car park is on the far right. The car park will cost you about £4 for the time you're away.



6 BOARDING THE FERRY

You're supposed to check in at least 30 minutes before the departure time to be sure you make it, but we breezed through in no time. Again, though, this wasn't during the school holidays. The departure lounge at Dover is pretty spanky, with shops, a place to swap your cash, loos and all sorts, so you'll be comfy while you wait. The system is that you go to the P&O desk (or whichever company you've booked with) and get your boarding pass and return ticket. Then you wait until you're called. Then you file past the desk, get on a courtesy bus and get plonked down by the ferry.

All at Auchan!

While you can get CPC software in lots of different places, the Auchan hypermarket was the one that really left us gobsmacked.

First of all, it had shelves packed with full-price software, lots of which was for the Amstrad (in fact it was second only to the Amiga for shelf space). Cop this little lot, for a start:

Addams Family	disk, 169F
Back to the Future 2	disk, 159F
BAT	disk, 299F
Chessmaster 2000	cass, 169F
Cisco Heat	disk, 159F
Double Dragon 3	disk, 179F



What's this? *Chessmaster 2000* on the Amstrad!

Gun Boat	disk, 159F
Jack Nicklaus Golf	disk, 159F
Lemmings	disk, 179F
Predator 2	disk, 159F
RBI2 Baseball	disk, 169F
Robozone	disk, 159F
Star Control	disk, 159F
STUN Runner	disk, 159F
Teenage Queen	disk, 209F
Thunder Jaws	disk, 159F



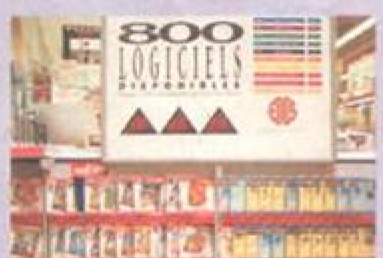
Look! Lots of compilations we've never seen before!

Apart from all those full-pricers, the French seem to go in for compilations in a big way, most of which we've never heard of (the games themselves are familiar, though):

Intégral disk, 229F
Lotus Esprit Turbo Challenge, Toyota Celica GT Rally, Super Scramble Simulator, Supercars

Bond Collection disk, 279F
The Spy Who Loved Me, Licence to Kill, Live & Let Die

Skyrock disk, 209F
Hudson Hawk, Rainbow Islands, Shadow Warriors, Grand Prix 500



Nearly 100 titles are available at budget prices!

NRJ: Compil-Action 4 disk, 259F
Prince of Persia, Sim City, Tennis Cup, Barbarian 2, Swap

We also found one yes, just the one cartridge game! There was one, solitary copy of *Klax*, on offer for 299F. We can't see that one shifting very quickly...

£4 CASSETTE, £7 DISK...!

By far the biggest range of games was available via Auchan's software duplication system:

500cc Grand Prix	cass	disk
Adv Fruit Mach Sim	cass	disk
Advanced Pinball Sim	cass	disk
Advanced Rugby Sim	cass	disk
Advanced Ski Sim	cass	disk
Airwolf	cass	
Airwolf 2	cass	
Army Moves	cass	
Battleships	cass	disk
Beyond the Ice Palace	cass	
Big Foot	cass	disk
Bomb Jack	cass	
Bomb Jack II	cass	
Boulderdash Const Kit	cass	disk
Buggy Boy	cass	disk
Cavemania	cass	disk
Chicago '90s	cass	disk
Cobra	cass	disk
Colossus 4 Bridge	cass	disk
Colossus 4 Chess	cass	disk
Commando	cass	disk
Count Duckula	cass	disk
Dizzy	cass	disk
Dragon's Lair	cass	
Dragon's Lair 2	cass	disk
Edd the Duck	cass	disk
Eliminator	cass	
Epherical		disk
F1 Tornado	cass	disk
Fallen Angel	cass	
Fantasy World Dizzy	cass	disk
Fast Food	cass	disk
Fire & Forget	cass	disk
Football Man: W Cup	cass	disk
Four Soccer Sims	cass	disk
Fruit Machine Sim	cass	disk
Galactic Conqueror	cass	disk
Game Over	cass	
Ghosts & Goblins	cass	
Gilbert: Esc from Drill	cass	
Guardian Angel	cass	
Highway Patrol 2	cass	disk
Impossamole	cass	disk
Jaws	cass	
Jocky Wilson's Darts	cass	disk
Judo Uchimata	cass	
Kwik Snax	cass	disk
Las Vegas Casino	cass	disk
League Challenge	cass	disk
Little Puff	cass	disk
Mach 3	cass	disk
Magic Land Dizzy	cass	disk
Mercenary	cass	disk
Mig 29 Soviet Fighter	cass	disk
Munsters	cass	
Ninja Commando	cass	disk

Things to do... Things to do... Things to do... Things to do







7 FERRY NICE TOO...

Although cross-channel ferries belt along at a fair old lick, you've still got around an hour and a half to kill while the boat crosses the channel. Fortunately, ferries are equipped with all the facilities of a small town. There's a restaurant, bar, shops and video lounge. In good weather, though, you'll probably want to be out on deck sniffing the sea breeze and trying to see France already. Things get a bit rowdy below decks sometimes, since boozers only after the duty free shop (they don't get off the boat at all) congregate in the bar swilling beer and puffing on fags.

8 HELLO BOULOGNE!

Huh... so this is France, is it? Boulogne looks a bit of a dump, frankly, as your ship draws in. The view on the left is OK, but to the right it looks like you've got the coalyard of Europe. On disembarking, you zoom through passport control and customs, along an incredibly tortuous enclosed corridor on stilts (you'll know what we mean when you see it) and emerge in the middle of Boulogne... nearly. First you've got to cross a road that makes Brands Hatch look like a smart place to test a zimmer frame. The zebra crossings are marginally safer places to cross.

9 WHERE ARE YOU?

Lost, eh? Didn't bring your map of Boulogne, eh? Well don't worry about it. There's a tourist information office on the right just as you reach the main road from the ferry terminal. On the right of the desk, in a little perspex dispenser (unless they've moved it) is a leaflet telling you how to get to the Auchan hypermarket by bus. Any other touristy information (historical sites etc) can be got from the wonderfully obliging peeps behind the desk. Boulogne is a pretty compact town, so as long as you've got a few hours to spare you can cover most of it on foot.

Offshore Warrior	cass	disk
Operation Hormuz	cass	disk
Overlander		disk
Paperboy	cass	
Para Academy	cass	disk
Postman Pat	cass	
Pro Boxing Simulator	cass	disk
Pro Golf	cass	disk
Pro Powerboat Sim	cass	disk
Punch & Judy	cass	
Rally Simulator	cass	disk
SAS Combat Sim	cass	disk
Scooby Doo	cass	disk
Skatin' USA	cass	disk
Soccer Boss	cass	
Soccer Manager	cass	
Space Harrier	cass	disk
Space Racer	cass	disk
Spaghetti Western	cass	disk
Spellfire the Sorceror	cass	disk
Spooky Castle	cass	disk
Spy vs Spy	cass	disk
Spy vs Spy 2	cass	disk
Spy vs Spy 3	cass	disk
Steve Davis Snooker	cass	disk
Super Trux	cass	disk
Superkid	cass	disk
Superkid in Space	cass	disk
Superski	cass	disk
Titan	cass	disk
Treasure Island Dizzy	cass	disk
Turbo Cup	cass	disk
Turrican disk only	cass	disk
Who Dares Wins 2	cass	
World Soccer	cass	
X-Out	cass	disk

SPEAKING OUR LANGUAGE?

There are two problems with going over to France to buy CPC software. The first is communicating – how good is your French? Fortunately, most of the locals speak pretty darned good English (better than your French, anyway). And all the types who regularly come into contact with English tourists speak to you in English whether you speak to them in French or not. But how do you play a game written in French? Well, quite easily, actually, because nearly all of the games on sale over there are from UK publishers! Even the French softies print English translations in their instructions – English is the international language of computer gaming.

Shopping around

The Auchan hypermarket wasn't the only place in Boulogne to buy CPC software. In our short stay we found two more shops selling Amstrad games.

BOULANGER

Just over the road from the Auchan hypermarket was a shop called Boulanger (it looked a bit like a Currys or a Rumbelows). It was a bit posh inside, and concentrated on fridge/freezers, TVs and the like, but there was a computer section and a selection of CPC games, including lots of compilations we didn't even see at Auchan. Hurrah!

There were also four games on cartridge! These were: *Klax* (again), *Mystical* (we never knew this was on cart!), *Plotting* and *Tennis Cup 2*.

MAJUSCULE

You don't *have* to go outside Boulogne to find CPC software. We didn't have time to explore every street with shops in the town (there were at least 632... probably), but we did find this place. In fact, as we suspected, CPC software is available all over the place.

OR TAKE A TRIP TO CALAIS...

Calais is pretty well as good as Boulogne for shopping. Apart from a host of speciality shops in the centre, there are two hypermarkets – Mammouth and Continent – each about two miles from the centre. The town itself isn't as nice as Boulogne, though.

Adam's top five French tips

1) BUSES The windows on French buses don't open, so you're gonna sweat. If it's a really hot day you'd be advised to sit on the side of the bus where the sun isn't (*er, so the sun's on the bus then is it? – ed*), even if it means changing sides throughout the journey. You'll look a prat but at least you won't die of heat exhaustion.

2) MAGAZINES Pop into a French newsie and flick through *Cent Pour Cent*, the Gallic CPC magazine. There are summaries of game reviews in pigeon English, though the mag's a bit expensive (25F – about £2.50 – and no covertape). Even more expensive is *CPC Micro* (26F) which consists of nothing but mega-long type-ins.

3) ZEBRA CROSSINGS A few French zebra crossings have traffic lights attached, but the majority don't. Unlike British crossings, the cars don't stop. The lines on the road are only there to let drivers know where they're more likely to run into a pedestrian.

4) THE BEACH Boulogne has a pretty decent beach. It's close to the ferry port, very sandy and there's a few crap ice cream stands on the way. Don't drown though, unless you have holiday insurance.

5) SUPERMARKETS Ange recommends *Mono Prix*. Beware: French baked beans are horrible. Oh, and don't buy any french sticks. There's no point – you can get them in *Tesco*.

... Things to do... Things to do... Things to do... Things to







10 GETTING TO AUCHAN

You get to the bus that takes you to the Auchan hypermarket (that's by far the best place for picking up CPC goodies) by turning right at this busy main road and walking along it for about a quarter (maybe half) of a mile. The bus ('Cars Sergent') leaves from a stop just outside a small supermarket – it's all indicated in the leaflet. The buses are old, hot and slow, but the trip only takes about 10 minutes. It costs 9F per person (return), which is cheap enough, but the buses aren't too frequent (about every 90 minutes). There are only three stops on the route, so you won't get lost!

11 SHOPPING IN AUCHAN

The Auchan hypermarket is actually in a much larger site containing lots of other stores. Over here we'd call it a trading estate. In France it's probably an *estate commerciale*, which makes it sound much more glamorous. Once you find your way into the Auchan store (it shares the building of that name with loads of other tiddly shops), the computer section is (with the checkout tills at your back) in the left-hand corner. They sell hardware, software, blank disks and all manner of computerish widgets. The rest of your folks will find plenty to look at elsewhere in the store.

12 WATCH THE TIME!

Well, it's been a long day. You've bought loads of stuff, you've drunk loads of expressos, you're stuffed full of croissants and funny, sticky bun-type things you've bought from patisseries... now it's time to amble back to the ferry. Just one problem. The departure time quoted in your brochure is local time, while your trusty Sekonda is still set to UK time – which is an hour behind! If you don't want to miss your return ferry, either put your watch forward one hour or remember that it's one hour later than you think! *Otherwise, you'll miss your ferry. (Like we did.)*

BrunWord

464 ROM Module £59

This is a low cost version of our fabulous ROM Module, specially produced for use on CPC computers with no disc drive. To get down to this price, we've removed the database and the BrunWord Elite fonts but all the word processing features and the fantastic As You Type spelling checker, are there ready for instant use.

Plug on the module, type !BW and half a second later the programme is loaded and ready to use. Then the really exciting bit! The tutor file is stored in the ROM, simply type G TUTOR1 <ENTER> and 2 seconds later it's in the BrunWord editor ready for you to experiment with. The tutor takes a complete novice straight into word processing and even includes some spelling errors to find and correct. And all this without once using the cassette.

The next step is to type in the example letter as instructed in the manual. Do it carefully as the computer will beep at every spelling error..... Save it as a memory file, make some changes, change your mind and call it back in 2 seconds! You only use the cassette when you want to make a permanent record. If you are practising your typing or your spelling, you may go for days without using the cassette......

The 464 BrunWord ROM Module is brilliant for learning to type and learning to spell, even if you don't have a printer. But that's just the beginning, you could go on to write your own full length novel. BrunWord ROM is a must for all serious 464 owners. (ROM module for 464 with disc drive add £15. ROM module for 464 Plus add £10).

Elite ROM Module £125

This is the ultimate addition to a 6128 computer. Word processor, spelling checker, 33,000 word dictionary, relational database and 10 superb 'type setting' fonts programmed into one high capacity ROM. Massive memory, small size and includes our latest innovations, the As You Type spelling checker and our System 2 simplified printer control.

The Elite ROM Module is supplied with an 8 bit Printer Status Port which enables the 'type setting' fonts to be used. It has many extra features including page layout commands and high quality high speed screen dump routines for 9 pin and 24 pin printers.

System 2 Printing

Our System 2 control, in the BrunWord Elite ROM module, makes micro justified printing very easy to use. Request auto-formatting and System 2 will take your screen layout, adjust it for the font that you are using and even allow for different printer margins. Roughly on the right, then it will be *on the right.* Roughly in the middle, then it will be *in the middle.* For straightforward pages, no layout instructions are required even when using proportional fonts. It's all controlled from simple instructions in the print menu, which are, of course, saved with the file.

6128 ROM Module £79

BrunWord 6128, BrunSpell, 33,000 word dictionary and Info-Script (powerful relational database) have all been programmed into one huge ROM along with our very latest innovation, the 'As You Type' spelling checker. The ROM is wired into a special printed circuit board and the whole unit coated in protective resin. It is very compact and plugs directly onto the expansion socket of the CPC6128 or 6128 Plus.

Plug on the module, switch on the computer, type !BW and the whole system is immediately ready for use. Type into the word processor, if the computer beeps, press <f3> and ask for help, transfer the correct spelling and resume typing. Use the database to print labels, search for an address, transfer it to the word processor and print it out, all without a single disc operation to slow you down, (except to load and save your own data).

Very Serious

The Elite and 6128 ROM Modules are perfect for an unexpanded CPC6128 or 6128 Plus. You need no other add ons. However, anyone who has two disc drives knows the frustration of inserting a disc, asking to load a file and being told that the other drive has no disc in it. You simply forgot to tell the computer to change drives. That's now a thing of the past. The BrunWord ROM always assumes that the drive with the disc in it is the one you want to use. It's so simple, yet saves such a lot of frustration! If you have a 3.5 inch second disc drive then you can have KDS ROMDOS included in your ROM for £6 extra.

Any Printer ?

All ROM versions work with any Epson compatible printer. All 24 pin printers can make full use of System 2. Older designs of 9 pin printers (Amstrad DMP2160 etc) are limited to whole space justification but modern 9 pin printers (Star LC10 etc) can use micro justification, even with proportional printing.

Epson 24 Pin

Every dot of ink on this page, including the drawing, the large 'BrunWord', our name & address, credit card symbols and Teddy, was printed in one operation using the BrunWord Elite ROM module and an Epson LQ1070 printer (wide carriage LQ570).

ROM Box ?

Remember... Our ROM Modules plug directly onto the computer. ***No ROM box is needed.***

BrunWord 6128 £30

BrunWord 6128 on disc is not quite so convenient as the ROM version and doesn't have our very latest additions, but at £30 it represents excellent value. Supplied complete with BrunSpell and 30,000 word dictionary, type RUN"BRUNWORD" to load both programmes and the dictionary. A very fast screen response, extensive editor commands and the 4000 words per minute spelling checker, make it a joy to use. On the disc is a tutor file which takes even a complete beginner straight into word processing and demonstrates the powerful editing and formatting features of BrunWord. The 40 page manual includes step by step instructions to produce and print a simple letter.

Font Editor £20

The Font Editor enables the BrunWord Elite fonts to be edited and saved to disc. It can handle fonts up to 32 dots high, so very high quality fonts can be created and used in the 'Headline' mode, on most 9 pin and all 24 pin printers. 'Headline' is a standard feature of the BrunWord Elite ROM module. Smaller fonts 24 dots high or less can be downloaded to 24 pin printers or used in the 'Headline' mode. The Font Editor also has size change routines and the ability to import hand drawn characters (using a Dart Scanner).



'The Gun Girl'

She knows how to cure bad spelling! (Drawing by Chris Rothero).

Send cheque/PO/Access, Visa, Connect number to:-



Brunning Software

138 The Street,
Little Clacton, Essex, CO16 9LS.
Telephone (0255) 862308

BrunWord 6128 with BrunSpell (on 3in disc). . £30.00
CPC464 ROM Module with BrunSpell. £59.00
464Plus ROM Module with BrunSpell. £69.00
464 ROM Module with connector for disc drive. £74.00
6128 ROM Module, BrunSpell & Info-Script. . . £79.00
Elite ROM Module, BrunSpell & Info-script. . £125.00
BrunWord Elite Font Editor. £20.00

****** You must state 'Ordinary' or 'Plus' ******

All prices are inclusive for UK. Overseas orders sent insured air mail - Europe add £2.50 : Rest add £7.50

NEWS... NEWS... NEWS... NEWS... NEWS... NEWS... NEWS...

amscene

Software pirates under attack!



• Bob Hay's FAST organisation now has a full-time member on the trail of games pirates...

ELSPA (European Leisure Software Publishers Association) has recruited an expert whose job is to nail softare pirates. The new official will work with FAST (Federation Against Software Theft), which already has an impressive record of successful prosecutions of large corporations.

'Corporate piracy', which is where large companies use lots of unpaid-for copies of word processing or accounts programs, costs serious publishers untold millions per year. This has been the first target for FAST. However, the new recruit to the team will be targeting the leisure industry specifically, and software pirates now face fines, confiscation of equipment, even prison sentences.

The Amiga is the machine most hit by organised software piracy. The industry estimates that games sell to no more than ten per cent of potential users as a result. As for the Amstrad, Roger Bennet, spokesman for ELSPA, explains that there are now comparatively few products on the market that could be targets for pirates. We asked if he though piracy had led to a premature decline in the Amstrad market. He described it as a "substantial contributory cause."

The piracy debate has been going on for years. Pirates claim that they are forced to copy software illegally because of the high prices charged by software houses. Software houses claim these high prices are necessary because of the level of piracy they face! Piracy will inevitably push up software prices. Even worse, it may force some publishers out of the market altogether. Pirates may enjoy short-term gain at the expense of the publishers, but in the long-term there may be nothing left to pirate...

The bottom line, following this new ELSPA/FAST initiative, is: pirates watch out! And remember, it is also illegal to knowingly purchase pirated software...

Staff changes at Amstrad Action

It's all change on the Art front at *AA* towers this month, as Art Ed Angela Neal leaves us for a new life in Brighton. "What's Brighton got that we haven't?" we asked her. "Sun, sea and candyfloss (only 25p)," she told us. (*You can get that in Weston-super-Mare – Ed. Except the sun and the sea, that is. And the 25p candyfloss.*)

But she's not the only one to go. Much-loved Art Assistant Maryanne Booth is also leaving. She's not going to Brighton, though. Instead, she's going to be working just round the corner on *Sega Power* magazine. You know, that thing about those flash-in-the-pan console jobbies. They'll never last.

"So why are *you* leaving?" we asked her. "Because I got sick of Adam and Rod winding me up and teasing me and making my life a misery. And Jane [our publisher] thought I deserved better."

Well Maryanne might like to know that we're forwarding extensive notes on Maryanne-winding-up to all the bods on *Sega Power*, together with a list of all the new things we didn't have a chance to try out.

So who's going to lay out all our pages then? Well, it's going to be none other than our pal Lam Tang. He used to work with ex *AA* Art Ed Ollie Alderton on *Commodore Format* (spit) before a brief stint on *Amiga Format* magazine (spit). But now he's back with the 8-bits! (Spi... oh, hurrah!)



Rod Lawton shows now Art Ed Lam Tang the ropes (er, the joystick cord, actually). "Give 'em and inch and they take a mile," Rod said later. Lam is now out of intensive care and will be back at work as soon as his head has been stitched back on the right way round.

New low-cost printers

Mannesmann Tally has weighed in with a new 9-pin printer for cost-conscious buyers. With an RRP (though you should be able to get it cheaper) of £179, the MT81 boasts an "unbelievable price/performance ratio". Certainly, its speed in 'correspondence' mode is pretty startling, at 130cps. NLQ quality is produced at a more sedate 26cps.

To find out more about the MT81, call Mannesmann Tally on 0734 788711.

All Formats fairs

These All-Formats Computer Fairs are breeding like rabbits. In September there are no fewer than three separate events:

- Saturday 5th, National Motorcycle Museum, Birmingham
- Saturday 12th, Sandown Racecourse, London
- Saturday 19th, Donington Racecourse, Midlands

We sent roving reporter Adam Peters to an earlier fair to size up the Amstrad interest. "Not much, actually. There was a 6128 Plus going for £200, plus a few old tape games at 50p or a quid, some really cheap joysticks and 3-inch disks at a quid apiece."

If you're in the vicinity, then, it might be worth dropping in to see if you can pick up any bargs. (You have to pay £4 to get in, though.) Further information from John Riding on 0225 868100.



There's not much for Amstrad owners at the All Formats Computer Fairs. You might pick up a few bargs if you're lucky, but enough to offset the £4 admission?

NEWS... NEWS... NEWS... NEWS... NEWS... NEWS... NEWS...

technical forum

Life, eh? It's not easy. Nothing ever goes right. Full of upset and trauma. Little Hammy Hamster's passed away, the Poll Tax people have finally caught up and to cap it all, you can't get your plasted printer to print in italics.

Wait! Step away from that window ledge. You need help and you've come to the right place. This is the section is the Betty Ford Clinic for those with a 'technical problem'. (Face up to it – that's the first step.) Prof ADAM WARING will soon put you right and you'll walk away with a new air of self respect.

Whatever your dilemma, send it in to: Technical Forum, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW

THINKING BIG

I own a CPC464 computer and I am thinking of upgrading the memory. At the moment I use it mostly for games but I would like to use it for technical things.

1. Could you please tell me what a RAM expansion does and how much memory it is necessary to have? I would also like to know how much it would cost.

2. Could you also tell me where to get a modem and how much that would cost?

Neil Gigg
Bigton, Shetland

1. A RAM expansion gives your computer more memory. The 464 has 64K of memory built in, which is fine for many things but some of the more serious applications, such as desktop publishing and art packages, require more memory.

64K RAM packs are widely available and double your computer's memory to 128K, making it compatible with most 6128 programs. You can go even further and buy a 256K RAM pack, but this is only really for the most serious of users and no commercially-available programs use it to its full capacity.

If you're stuck for a supplier, then RAM packs in both memory configurations are available from Datel Electronics, costing £49.99 for the 64K expansion and £99.95 for the 256K expansion. Contact Datel Electronics, Govan Road, Fenton Industrial Estate, Stoke-on-Trent ST4 2RS ☎ 0782 744707.

2. The problem with modems is that they can't be plugged directly into the Amstrad. For that you need to buy an RS232 interface and these haven't been available for a long time.

However, all is not lost. Siren Software is producing one and is just putting it through the final stages of testing and it should be available shortly. We'll hopefully be giving it a full review in next month's *Technical Forum*.

The interface will cost £59.99 when it is finally available and Siren ishoping to produce a full interface and modem package around the £175 mark. Get in touch with Siren Software, Wilton House, Bury Road, Radcliffe, Manchester M26 9UR ☎ 061-724 7572.

GET SERIOUS

I am just starting to turn my CPC464 into a more serious machine and I would like you to answer these questions for me:

1. Could you tell me what Arnor's *BCPL* is and can you tell me a little about it?

2. Are there any art programs available on ROM?

3. Why can *Power Page* be loaded only from disk?

Johnathan McVicar
Prudhoe, Northumberland

1. Arnor's *BCPL* program is a version of a computer language, just like BASIC. It's fairly fast, and is quite easy to use too, but has never really taken off in a big way on any computer. One, I think, for the enthusiast only. If you're interested in programming games or commercial programs, then I think you'd be better off getting an assembler and learning machine code.

2. No, there aren't any that I know of. If anyone knows different, then I'd like to know.

3. You'll just have to accept that it's a disk-only program. When programmers write such programs, they often write it for the configuration they have. It's simply too much hassle for them to write it to be compatible with lower-configuration systems. A program like *Power Page* wouldn't really be practical for running from a tape machine as it requires quite a lot of saving and loading. Sorry, but if you want to use it, you'll just have to upgrade!

SCANNING ON HAND

I am the proud owner of a 6128 Plus and recently have been interested in printing out pictures. Could you please tell me if there are any hand-held scanners and scanning software available for the Plus and also a rough price range – it doesn't matter is they are black and white. If it is any help, I have a Star LC200 colour printer.

Anthony Williams
Enfield, Middlesex

I'm not aware of any hand-held scanners designed for the 6128. However, there is an alternative that may be of help.

The Dart scanner is an ingenious device that clips onto the print head of your printer, using the printer's mechanism to advance the paper as it scans the image. It's actually designed to fit onto the Amstrad DMP range of printers, though with a bit of clever positioning of Blu-Tac you should get passable results. The Image Scanner costs £79.95 from Dart Electronics, Unit B5, Oulton Works, School Road, Lowestoft, Suffolk NR33 9NA ☎ 0502 513707.

Alternatively, a digitiser can be used to get real-world images onto your computer. It can be plugged into a video camera or video cassette recorder, and can 'freeze' an image and copy it into the computer's memory. The Rombo scanner is available for £69.95 from Rombo Productions, 6 Fairbank Road, Kirkton north, Livingston, Scotland EH54 6TS ☎ 0506 6TS.

FOLLOW MY LEAD

1. Could you please suggest which lead would be most suitable to enable me to play tape games on my Amstrad? I have an Amstrad 6128 which unfortunately only has a disk drive fitted as standard.

2. Could you please explain to me why it is that tapes don't work on the 6128?

3. What's the difference between BASIC and machine code?

4. Why aren't the *Dizzy* games available on disk?

S McPherson
Barftshire

1. You should be able to pick a lead

A ...that fits between your 6128 and a cassette recorder from and decent computer shop. If you can't find one locally, try the mail-order suppliers in *AA*. Even if they don't list them in their adverts, they may be able to help.

2. They do... sometimes. The problem is that loading from tape is a frustrating experience. Disk drives are especially designed to hold information accurately to be read quickly and conveniently by computers. Cassette recorders are designed for audio listening and are not ideal for computer use, however, they're very cheap, and so computer manufacturers in the '80s (including Amstrad) often opted for this slower, less-reliable medium. If you have trouble loading from tape then try adjusting the volume level, cleaning the tape heads, and if that doesn't do any good, adjusting the cassette head alignment with a watchmaker's screwdriver. It's rarely a faulty tape that causes loading problems.

3. BASIC is what's known as an interpreted language. The computer has to translate each instruction into machine code before it can execute it, which makes it relatively slow to run a program. Machine code is many times faster, often by factors of 100-fold. However, it far more complicated to learn when compared to BASIC, which was originally designed as a beginners' language and so isn't half as complicated to pick up. For many uses, BASIC is perfectly adequate, but if you're serious about programming, then machine code is the fastest you can get as it's the language the machine understands directly.

4. Codemasters, which produces the *Dizzy* games, specialises in budget software, which retails for low prices. It's simply uneconomical to produce budget games on disk, which are far more expensive

SCRATCH PAD

I have a few questions to ask concerning my Amstrad 6128:

1. The plate that has the Key Numbers and Master Colour ▶

NOW YOU'RE TALKING

James Henry from Colchester wants his computer to talk to him.

Q **"What does a speech synthesiser do and is it available on the 464 tape?"**

A Never mind, James, I'll talk to you! A speech synthesiser is a program that uses the computer's speaker to produce speech-like sounds. So yes, you can actually make your computer talk to you! There are two ways to get the computer to do this. The first is using sampled speech. The computer monitors a sound through the tape socket, and 'records' the sound into its memory. It can then be replayed through the speaker. This technique produces quite an accurate reproduction of the sound, but takes masses of memory for even a tiny sample of sound. You may have heard this in some computer games.

The next method is using the phonetic system. Various letter combinations are broken down into phonemes – these are the sounds that build up to form a language. Words that the computer speaks have be spelt in all manner of odd ways. They have to be spelt phonetically – the way they sound – rather than grammatically. For example, the word car is made from a 'c' and 'ahh' sounds. So you'd ask the 'computer to speak the word 'cahh'. (Or something like that.) This method takes up far less memory, but tends to take a lot of fiddling to get things right, and even then resembles a dalek speaking through a barrel of treacle.

As for a program that does this, there used to be one marketed by Superior Software called *Speech!* I don't think it's available any more, though. You may want to try getting hold of it through the *Techie Helpline* section.



Ask Alex...

Hello, and welcome once again to the only place that newies are safe. If you're stuck on even the most elementry problems, then don't be shy, drop me a line and I'll do my best to help!

Don't ask me about machine code or anything technical, though. I can only cope with the simplest of problems. One other thing, a lot of you have been asking me for help with games. You're asking the wrong girl! I'd love to help but I'm absolutely useless at games. Write to: *Ask Alex, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW*

IT DOESN'T CONNECT

Printers are forever causing problems for us newies. Take F McLean from Kilmaurs, way up there in Scottish Ayrshire. He (or she – the initial doesn't give it away!) has a CPC464 and a printer. It's just connecting them together that's the problem.

Q **"What type of lead do I need to connect my new Star LC-20 printer to my CPC464, and where can I get hold of one?"**

A The first thing you need to know is that the Amstrad uses the standard Centronics printer interface. Second thing is that is uses a non-standard lead! This is because the edge connecter is used in place of the more common 'D'-shaped connector that other computers more commonly have. (Plus owners note that their machine does have the proper connector – they can use a standard lead!)

You'll need to get hold of a special lead called an Amstrad PL-1. If you can't find it locally (I must admit, Kilmaurs sounds a bit rural!) then many of *Amstrad Action*'s mail order suppliers may be able to help you. Scan the ads for a 'PL-1 printer lead or equivalent' and you won't go far wrong. Make sure, though, that the lead has pin 14 'cut'. Your dealer should know what you mean.

HELP

Do you have a problem that may benefit from the help of some of our 37,000-odd readers? Or maybe you're desperately in need of a piece of kit that you simply can't find in the shops? On the other hand you could have expert knowledge that you're prepared to share with whoever phones you up ('cos that's the kind of guy/gal you are).

If so, drop a line to *Technical Helpline*, preferably on a postcard or sealed-down envelope. Don't forget to include your phone number – sorry, we're unable to print addresses. Send your entry to: **Technical Helpline, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW**

Wanted: TV modulator for CPC464
Darren, 0693 878607

Wanted: Master CP/M system disk (6128) – will pay. Anyone know the full address/phone no of the Amstrad Home Computer Club, Swindon?
Paul, 051-928 3207

SOFT 968 wanted to borrow, buy etc. I'll pay just to lend it for a week. So please, someone, this is an opertunity to make money for nothing.
Paul, 0446 736529 after 6pm

Needed deperately! Firmware guide (SOFT 968) and BASIC manual (SOFT 967). Will pay good price or swap for games, advice (limited!), tips etc. Also wanted, other CPC manuals and books.
Rayner, 021-422 5894 after 5.30pm

Does anybody have a copy of AA33 to sell or just a photocopy of the joystick splitter project?
David, 081-876 9302 after 6pm

Wanted: anyone who has a Mini Office II disk and would kindly contact me. Mine has crashed.
Barry, 0752 661614

Wanted: 64K memory expnson for 464 Plus, £15-£20.
Robert, 0989 66177 after school hours

I need a CPC6128 TV modulator. Will swap for *Kick Off Collection*, other games or green screen monitor.
Wayne, 071 700 0715

Wanted: Disk drive for 464 Plus, two-way port expansion, Wave Widget, 64K RAM expansion. Will exchange for Atari VCS Games System plus games and two joysticks.
Sue, 0501 41803

top tips

Send your cleverest ideas to: Top Tips, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW

BREAK IN

I've found a simple way of protecting your programs from prying eyes. Put these lines at the start of the program:

```
10 ON BREAK CONT
20 IF pass$="whatever your password is" THEN 40
30 CALL 0
```

The program begins at line 40. Save the program under the protection using:

```
SAVE "filename",P
```

When you to load the program normally, by using RUN", the computer will reset. To load the program you need to type:

```
pass$="your password"
CHAIN "filename"
```

The program will load and run itself as normal. The routine isn't totally tamper-proof, but should do for most situations when this sort of thing is necessary.

William Hales
Knutsford, Cheshire

SHADES OF GREY

I have discovered a method of having a permanently shaded background on the 464. It works best in mode 2. Type:

```
MODE 2:POKE &B290,&AA:CLS
```

If you want to remove the background colour simply type `PAPER 0:CLS`

There is also an effect to get multi-coloured text. This is most effective in modes 1 or 2. Type:

`POKE &B28F,`any number between 0 and 255

To remove this type `PEN 1`

And finally some ways of getting round 6128 commands if you have a 464:

6128 command	464 substitute
CLEAR INPUT	CALL &BB03
FRAME	CALL &BD19
GRAPHICS PEN	PLOT -10,-10,pen

Mark Goddard
Tadley, Hants

Chart on top of the built-in disk drive has become severely scratched and is now unreadable, which is extremely annoying and these scratches also mess up the look of the computer. Is it possible to get a replacement plate or do I have to buy a new case for the computer?

2. Is it possible to make back ups of commercial games? If so, how do I do it? I have tried using *Disckit* on the CP/M disk, but it rarely works and it when works, it's only with older games.

3. Can you put tape games onto disk? I have heard this is possible with a Multiface, but is this true? If so, how is it done as I am hoping to buy a Multiface in the near future.

4. I own a Genius Mouse, which I bought from Datel Electronics a few years back. I want to purchase *Stop Press*, but will my mouse work with it or do I have to buy an AMX mouse?

Sam Grantham
Melton Mowbray, Leics

1. Amstrad's official spares supplier is CPC Ltd (a coincidence, I promise you) and if anyone can help you, they can. Contact them on ☎ 0722 555034.

2. Commercial games are notoriously difficult to copy because publishers are worried about about piracy – if the games are too easy to copy then people might be tempted to simply take a copy from a friend rather than buy their own copy of certain games. As time went by, protection systems have become more and more complex, and even the most primitive disk protection systems are able to prevent tools such as *Disckit* from copying the programs they protect.

3. A Multiface does indeed allow you to transfer tape games to disk – as well as a variety of other useful functions. It works by freezing the operations of the computer and then taking over the running of the machine, providing functions such as saving the entire contents of memory (i.e. the game you've just loaded) to disk. Another option allows you to resume the game at whatever point you froze it at, making it great for cheats – get past the end-of-level baddie and you can save your progress; you'll never have to fight him again!

4. Yes, you'll be glad to hear that no more expenditure is required. *Stop Press* will work with the Genius mouse without any problems.

SPLITTING UP



I recently bought an Atari-style joystick splitter from a computer store. I bought it home and plugged it into a Cheetah 125+ joystick and an Amstrad JY2 joystick before loading *International Karate Plus* which uses two joysticks on two-player games. I was dismayed to find that both joysticks controlled the same player. I tried the splitter and joysticks on

review The Firmware Guide

£7.95 ● BOB TAYLOR AND THOMAS DEFOE, 8 MAZE GREEN ROAD, BISHOP'S STORTFORD, HERTS CM23 2PJ

When Amstrad designed the CPC range of computers they made it easy for programmers to use the internal ROM routines to quickly and easily achieve functions without having to re-invent the wheel by writing their own specialised routines. A table of addresses is used to access the various ROM routines. A simple call to one of these addresses automatically switches in the appropriate ROM, executes the function and then returns control to the user. These addresses are known as the firmware jump blocks. They're held in the computer's RAM and are upwardly-compatible throughout the range – the actual ROM addresses have changed in different incarnations of the machine, but the jump blocks will always point to the right address.

For instance, printing a character on the screen – a straightforward procedure from BASIC – is an extremely complicated process in machine code. Screen addresses need to be calculated and character tables accessed – not the sort of thing the beginner is ready to face in their first faltering steps in machine code. Using the firmware it's a case of simply loading the accumulator with the character you want to print and calling the firmware address.



By using this system, the ROMs can be safely hidden away, only needing to be called up when the computer requires them, freeing much of the memory as RAM which can be used to write larger, more comprehensive programs. Because the firmware addresses are in RAM, they can also be patched to create custom-built routines. The prining routine can be modified to create multi-coloured chatracters, for example.

■ The *Print Out Firmware Guide* is an invaluable tool for programmers and assorted wireheads everywhere. *AA* recommended.

three or four different games but got the same response. Is it the splitter that is faulty or do I need to buy a different joystick?

P Smithson
Emley, West Yorkshire

No, you don't need any different joysticks and the splitter's not faulty... exactly. You've actually bought the wrong type. The one you've bought is actually designed for the Atari ST, and not the CPC.

It is designed to duplicate a single joystick port so that the mouse and a joystick can be plugged in at the same time.

Try taking the splitter back to the shop explaining that you need one for the CPC.

If they can't help you out, then you might be better off phoning round some of the mail order suppliers that you see advertising in Amstrad Action.

CHIP SHOP

Could I unplug my Z80A chip and replace it with the 6Mhz Z80B without any other modifications? I have a CPC 6128.

Colin Byrne
Duleek, Eire

Well you could, but it wouldn't do you much good. Although the Z80B is capable of running faster than a Z80A, it won't mean an increase in speed – not without completely reworking all the timing circuitry inside the CPC. And that is so big a job so to make it not really viable.

GET COLOURFUL

I have had a black and white TV for a couple of years now and I was thinking of getting a colour TV. But when I read about the Amstrad TV tuner in *AA*, I decided that I'd pay £20, rather than £200. I have three questions:

1. I've heard that these tuners damage the monitor. Is this true?
2. Where do I get one?
3. Is there any way I could make a home made one?

Daniel Johnson
London

1. Plugging a TV tuner into your monitor won't harm it. This rumour probably spread about because plugging a computer into a telly can produce an effect that's known as 'burn-in'. Unless you have a tendency to watch the test card all day long then you have no worries.

2. Many of *AA*'s advertisers carry them. Try WAVE = 0229 870000.

3. Even if you possessed the skill and technical knowledge, I doubt that you could build one for the price you can pick them up for.

It's all right having this capability, but you need to know about it. You need information about what routines are accessed by what addresses and what those routines actually do. This was provided, for some time, by the publication of *Soft968*, or, as it became known to its friends, *The Firmware Manual*. This reference guide became the programmers' bible. It may have been a bit unfriendly in places and skipped over information that certainly wouldn't have done you any harm knowing, but if you were getting into programming the first thing you did was get hold of a copy of this invaluable book.

Then, over three years ago, availability of this manual dried up. Amstrad refused to reprint it, despite a large demand by programming enthusiasts. *Amstrad Action* even wrote to Amstrad, asking for the rights to reprint the manual as we saw it as an invaluable guide for any serious-minded reader. The answer remained the same: *The Firmware Manual* was out of print and that's the way it was going to stay. This step must have hindered more would-be programmers getting to grips with their computer than anything else. Existing *Firmware Manuals* became worth their weight in gold.

But now there's a chink of light. A brand new book, written by a couple of Amstrad enthusiasts, intends to fill the gap left by *The Firmware Manual*. It doesn't have any pretensions about what it's about; it's called *The Firmware Guide* and provides most of the information that Amstrad's absent book was relied on for, and a little more that it didn't.

One of the areas that it covers that the original book didn't is a comprehensive memory map, containing a full list of system variables. This is the area of RAM that the computer uses to keep track of things, mainly compiled from the authors' experimentation. It doesn't claim to be 100% accurate as there is no 'official' source for this information, but provides some very useful information nevertheless.

This is followed by sections on the firmware jump blocks themselves. First there's an 'at a glance' listing of all the addresses with a brief description of what the routine does, then a more in-depth section describing what each routine does in detail. This friendly approach makes scanning the address for a desired routine easy. It also has the floating point maths functions listed – these were omitted from Amstrad's publication.

There are also sections covering the Z80 instruction set, BASIC tokens and port addresses. The information is clearly laid out throughout, and generally it's quick and easy to pinpoint what you're looking for.

It glosses over the I/O ports, providing a simple list of what's connected to the various addresses but giving no explanation about what any of them actually mean. It also missed out any information on what the various chips inside the CPC and Pluses do. Areas that the Amstrad guide covered in detail.

The book is A4 in size, and runs to 80 pages. It's ring-bound and has a fairly flimsy paper cover – cheaply printed but the binding is ideal for a reference book of this sort as the pages stay flat when you open them. Besides, it's not the quality of the paper you're paying for but the quality of the information – and that's high.

It won't teach you how to program, but it will supply the programmer with a mine of information. Gripping bed time reading? No, but as a reference work it's invaluable.

good news

- A long-awaited and invaluable book
- Clear, informative and friendly
- Has some info that the original book missed...

bad news

- ...But not as comprehensive in other aspects
- Cheaply produced (if this is a problem!)

88%
VERDICT

top tips

DEVPAC FROM DISK

WINNER! £10

In *Mastering Machine Code* in the July 1992 issue of *Amstrad Action*, Andy Price stated that *Devpac* kapt crashing on him. When running *Devpac* from disk on my 464, I found that when a program got to a certain size, the disk drive became inoperative, responding only with 'Bad Command' when I tried to load or save a file. As the only alterative was to load *Devpac* from cassette, I set about finding a solution.

As it happens, it appears that *Devpac* overwrites the disk firmware's variables. The program below solves the program by relocating them to a higer area:

```
1 ; DEVPAC DISK SETUP ROUTINE
2 ; (C) Gareth Watts June 1992
3 ;
4 *L-
10 ORG    #4000
20 ENT    $
30 LD     C,7
40 LD     DE,#8000
50 LD     HL,#B100
60 JP     #BCCE
```

Type that into *Devpac* and save it onto your *Devpac* disk using P 1,60,filename.

Now every time you want to use *Devpac*, load this program first, Assemble it, Run it and Delete it using D 1,60. *Devpac* will be set up and ready for your own programs. The only point to note is that you cannot use BASIC after running the program. (The computer will lock up if you try it.)

You may also be interested to know that the 15 fonts supplied on the February covertape can be used on the *Powerpage* program given on last month's tape. This program will transfer them from cassette to disk with a filename ready to use with *Powerpage*:

```
10 SYMBOL AFTER 32:h=HIMEM+1
20 |DISC.OUT:|TAPE.IN
30 FOR x=1 TO 15
40 READ sav$
50 LOAD "!"+sav$+".FNT",h
60 SAVE sav$+".CHR",b,h,&300
70 NEXT
80 CALL &BB4E
90 DATA blocked,bold2,boxed,
digital,handwrit,malone,modern,
network?,ocean,old,shadow,
thinjoin,total2,twriter,wide
```

Gareth Watts
Norwich

All-change in Technical Forum

It's a sad day at *Amstrad Action*. Adam Waring, programmer extraordinaire (remember *Lost Caves?*) and the magazine's resident technical guru, is leaving! Where's he going? He's going round the world, so he tells us, 'to find himself'. When he's found himself, he's coming back to Future Publishing – but that won't be for about a year. Well, all we can say is, good luck! But what's going to happen to *Technical Forum*...?



● OUT Adma Waring leaves *Amstrad Action* to go globetrotting.

Don't worry! *Technical Forum* is going to carry on as big and bold as ever. Taking over from (Uncle) Adam Waring from next month is none other than Richard Fairhurst. He's the boss of Robot PD, the company that's provided *AA* with such spanky covertape progs as *Croco Magneto* and *PowerPage*.

Richard is also one mean coder, so we reckon he's the ideal bloke to step straight into Adam's shoes (poo...!), not least because there's nothing Rich doesn't know about our little plastic pal (er, the Amstrad, that is, not Adam).

But that doesn't mean that Adam won't be sorely missed. After all, from now on there won't be that confusion of having two people called 'Adam' in the same office! And we'll miss his cheery banter and winning ways... like the way he was always first out of the taxi but last at the bar whenever we went for a drink. And the way he'd never stop talking about Hull, even when everyone had gone home and there was only Mrs Moggs the cleaner there and she never had her deaf-aid turned on. (Well, would you?)

But never fear. *Techie Forum* is going to carry on with its same blend of technical questions and answers, product reviews and useful tips. Plus of course the ever charming Alex van Damm and her section for beginners.

As for Adam, we asked him if he had one final message for all the readers on this rather sad day?

"Um... bye."

Er, thank you Adam.



● IN Richard Fairhurst takes over the *Techie Forum* section in *AA*.

AA SMALL ADS

For Sale

CPC6128 colour monitor, tape-deck, mouse, joystick, Multiface II, OCP Art, 100+ games, mostly disk, 25 blank disks. All fully boxed. Worth £1200+ sell for £475 o.n.o. Phone (0329) 41422 after 5pm.

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FOR SALE: MP2 Modulator £25 o.n.o. Includes postage. Includes Bards Tale, Laser Squad, North and South. Phone David Hayes 041-881 7268.

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Service Manual - CPC6128	£11.00	£1.18
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Welcome to ACTION TEST...

28 Football Managies
VARIOUS



■ Football management sims are amongst the most maligned (and most popular) of game types. We test out the lot...

30 Turbo the Tortoise
HI-TEC



■ An excellent platformer from Hi-Tec (and one of their rare non-licence releases), Turbo is tops!

34 Captain Dynamo
CODEMASTERS



■ Vertical jumping lunar lunacy from CodeMasters' new geriatric hero. But how wrinkly's the game itself? Find out here...

GRELL AND FALLA

CODEMASTERS • 0926 814132 • £3.99 CASSETTE

The world's first garden-em-up. Hmm... So is this an inspired piece of game creation, then, or have the past thirteen years of home computing been garden-em-up free for the simple reason that the whole concept is completely stupid?

The answer to both questions is 'no'. No, this isn't an inspired piece of game creation – it's just a slow and dreary beat-em-up with a bit of horticulture thrown in. And no, the last thirteen years haven't been garden-em-up free anyway: what about *Hover Bover*, *Lawnmower Simulator* and *Magic Garden*?



Grell & Falla is a game of two characters; there's a burly goblin (called Grell) and a somewhat less burly fairy, called (can you guess?) Falla. She was going to be called Fella, before CodeMasters decided that 'fella' wasn't a very good thing to call a girlie.

This odd partnership are being employed as gardeners by a sorcerer. Tending a sorcerer's garden is of course a lot more troublesome than your average horticultural endeavour. As well as planting seeds and fertilising the soil, the mystic twosome must also turn possessed fluffy animals into good-once-more fluffy animals, using a subtle blend of spell-casting and extreme violence.



■ Falla's my favourite, cos she can fly (and thus drowns less).



■ This is Level 51. There are 50 levels. Er, it's a long story...

Utilising the Return key to toggle between the two characters, you must engoodify all the slugs, bunnies, frogs and other cuties you encounter. Sorting them all out takes you to the next level, but to earn some cash you also need to do some gardening, eg grow a few flowers.

This can be done in five steps: (1) Take control of Falla. (2) Take to the air and sprinkle some fairy dust over the piece of grass you want to use. (3) Switch control to Grell. (4) Plant a seed in the the dusted area. (5) Watch in wonder as a beautiful flower grows (and you get killed for standing around in the same place for too long).



Sounds fair enough. What's wrong with the game then, Adam? It's too slow, mate. Everything scrolls laboriously, and there's an 'inertia' feature for extra grimaces. It takes a few seconds for your characters to turn round. Even though you're yanking the joystick to the right, your hero will continue drifting left before falling into a river and drowning. Let's be honest, the speed these sprites are travelling at they ought to be able to turn on a sixpence.

In summary, the screen is small, the sprites are large, the graphics and sounds are mediocre, and the controls take more getting used to than could possibly be good for them.

The bunnies are sweet, though.

Adam Peters

SECOND OPINION

"There's a few interesting ideas in here, and it looks quite jolly. What really lets it down is the lack of speed. Merely average."

ROD LAWTON



■ Grell fires off stars to make the bad things good (aw...)



■ "How about this old sock? To you, twenty quid. Go on..."

FIRST DAY TARGET SCORE

Get to level ten

graphics 63% Codemasters rarely go in for mode 0. This is colourful if a little garish, with little animation.	**grab factor 45%** The game looks quite naff, and the control method will put you off right from tne start.
sonics 42% Not much going on really – just a couple of standard bleepy effects to go with the action.	**staying power 57%** 50 levs is a helluva lot. Stick with it and you might get the taste. Quickly gets tiring though.

51% VERDICT

'Group tests' are an excellent way to show people the differences between products and why one is better than another. Camera mags, cycling mags and business computing mags really go in for these, so why can't you do the same thing with computer games? We couldn't think of any reason at all. That's why ADAM PETERS is now wearing a sheepskin coat and shouting "early ball" at his monitor...

setting the style

Football is a mighty popular subject for computer games. Stands to reason really, seeing as how the two activities appeal widely to the same target group – adolescent boys.

Football arcade games go down well with virtually everyone, but soccer strategy games are much more of an acquired taste. They call for brains rather than brawn, and if you'd rather be Graham Taylor (or someone good) than Terry Fenwick (or someone good), swapping glamour for involvement, then these are the games for you, chum...

A swift glance round our local John Menzies and we were ready to phone the MOD to report an invasion. Footie strategy games really do seem to be taking over. Examples of the genre fill the poorly-lit parts of every budget software shelf from here to the Maracana stadium.

A company called D & H Games – through its Cult label – has to accept most of the credit/blame (delete according to taste) for this. It is responsible for no fewer than 23 different CPC football games, virtually all of them pure management sims. Mind you, some cynical souls have suggested that D & H/Cult have only actually produced one football management game, they've just put it in 23 different boxes. Tsch.

Oh well, settle back and join us as we put six games of this type through their paces, and pass judgment on a further dozen.

HIT FOR SIX FOOTBALL

1st Division Manager
Codemasters • £3.99

Background This came out a couple of months ago, but the Codies seemed to be keeping quite about it. The first we knew of the game was when it popped up in this month's budget charts (at number four). It's programmed by veteran Cult coder Nick Thompson.

Options A whole host of functions, most pretty standard; training, scouts (the sort that watch opposing teams, not the sort that help old ladies across roads)... oh, and there's a computer database. Fair enough.

Matchday Probably the best example of the 'half-and-half' type of match highlights. As well as detailed commentary on who's got the ball and what they're doing with it, there's also a reasonable graphic depiction of the ebb and flow of play.

Pros The presentation is brilliant, with the main menu being a picture of your office. Move your pointer round the screen, clicking on filing cabinets and phones when you want to use them. (This technique was first put into use in *Yes, Prime Minister.*)

Cons Silly transfer market (you need to type in a name for who you want to buy – the only players you'll know about are the ones you've played against). Basically it's a standard Cult type game, dolled up a bit. Most games end nil-nil.

Tactic Bung your scout £800 to spy on your next opponents, he'll tell you who their best player is. Buy that player immediately. As well as strengthening your team, you'll also be weakening theirs.

Summary Very nice to look at and easy to get into, but behind all that it's not a very complex game and goals are awfully hard to come by.

54%



■ **Now this is what we call at menu screen. £800 for information of Cardiff? We'll buy a guide book.**

Football Manager 2
Addictive • £3.99

Background *Football Manager 2* is the sequel to (not surprisingly) *Football Manager*, which was the first real mega-selling game. Author Kevin Toms was also apparently the first person to become a millionaire through writing games (it says here).

Options Tons. Whilst the instructions for most of the other games featured in this round-up consist of just a single paragraph of text, the instructions for *FM2* run to two or three pages.

Matchday This is where it gets really good, with extended highlights of each game. These are as detailed in appearance as top footie arcade games, and the highlights can go on for up to ten minutes.

Pros Brilliant match sequences, detailed player attributes (fitness, skill, age) and an excellent transfer market – players go for less than the asking price, so get bidding – make this one a classic. You select exactly where to position each of your players, so a tactical sense is necessary.

Cons You can't avoid watching the highlights. After a while, especially if things are going badly, you might get bored of these. You could make a cup of tea while they're on, but that would mean getting through about a dozen cups of tea an hour. Don't be sick.

Tactic Pitching the right players against the right opponents – and a decent tactical formation – is the key.

Summary *Football Manager 2* is quite simply one of the best soccer management games available. Only *Kenny Dalglish's Soccer Manager* can compete. And I'm not just saying that because I'm so ace at this, having just won my first *FM2* match for three years 8-1. (*Stop showing off – ed.*)

81%



■ ***Football Manager 2* does have really excellent match sequences, as you can see. C'mon you reds...**

League Challenge
Codemasters • £3.99

Background Before we beat this kicking and screaming into the dirt, we'd better outline the situation: this is a league management sim just like *Footballer Manager 2, Soccer Boss* and the rest. It has a full four divisions, cup competitions and so on. Whereas *Track Suit Manager* is hindered by its subject matter (the international arena), *League Challenge* should have everything going for it. Right, let's go...

Options Virtually none, unfortunately. You can select how intensive you want to train your lads (1, 2 or 3) and pick eleven people to put out on the field. And that's it really. Oh dear.

Matchday Ha ha ha, what is this? Little block men marching on the spot with thin black lines flashing on screen for a micro-second whenever they shoot at goal. It's quite entertaining in a mindless sort of way, but sadly not for very long.

Pros Er... well, your five year old brother would be able to play this, as would your 90 year old granny. So it's a game for all the family then. And... er... no, I can't think of anything else. Terribly sorry and all that.

Cons There's just no game here at all. To put it into perspective, just imagine *Lemmings* without any lemmings in it or *Pro Tennis Tour* without a ball. I mean, really, what's the point?

Tactic Just press 'c' for continue every time it tells you to.

Summary Even the transfer market in this is duff (you have to wait till a player is offered to you, and then choose whether to buy). The gameplay is just so limited that it makes this just about the most pointless game ever. You'll find more options in a BR buffet car. Aaaaaargh.

12%



■ ***League Challenge*, on the other hand, has nob match sequences. These chaps don't even move!**

MANAGEMENT

Soccer Boss
Alternative • £3.99

Background Another oldie, *Soccer Boss* came out as a budget-priced rival for *Football Manager 2* and sold in its thousands. It's still available from most good budget software stockists (especially those with electronic duplication systems).

Options The main screen shows your squad and allows to you to move the players around or select the separate menu that includes the transfer market, finance, league tables etc.

Matchday There's no graphics at all and no commentary either. But does that mean that it's dull? NO WAY! Matchday in *Soccer Boss* is the sort of nail-biting experience that most ardent football fans will be more than familiar with. You can't get to the game so you call up the results page of *Ceefax/Oracle* and bite your fingers to the bone? That's what *SB* is like.

Pros A fairly simple game, but that's a 'good thing'. There's enough options to make it a tactical challenge and everything's laid out really well. The match reports (goalscorers) are fabulously nerve-wracking.

Cons There's no haggling on the transfer market and little in the way of training, but the game wins through even without having this extra depth.

Tactic Snap up all the 9-rated players on the transfer list and ditch all your deadweights (3ers and 4ers, to begin with). There's plenty of players up for sale, so you can afford to have a really small squad – in the event of an injury, just buy a replacement.

Summary *Soccer Boss* is nothing to sell your granny to the dustmen for, but it's a reasonable game. It's simple to get into but soon become as addictive as chocolate mice (*chocolate mice? – ed*).

66%



■ A squad of only twelve? With the *Soccer Boss* transfer system you can get away with it...

The Match
Cult • £3.99

Background One of Cult's massive soccer strategy stock, *The Match* isn't their most recent title (things like *International Manager* came after) but it's still riding high in the charts. A few obvious similarities (content-wise) with *1st Division Manager*, but then it was programmed by the same bloke.

Options The same options as *1st Division Manager*. If anyone wrote a *Soccer Management Game Creator* program this would be it. Everything's there, but in its simplest form.

Matchday Similar to *1st Division*, but the text is a little more exciting and the graphics are a lot sadder. There's more chance of someone scoring than in the CodeMasters game, though.

Pros Features an easy selection procedure (hit the first letter of the required option). The bare bones of the game is actually slightly better than the Codiemasters game, but everything else (er, the flesh of the game) is too dull.

Cons This is an identikit soccer management game, with nothing at all to merit a mention above all the rest. If you've got one Cult game, you don't need the others. Unless you're collecting them in the same way that other sad people collect stamps.

Tactic Bung your scout £500 to spy on your next opponents, he'll tell you who their best player is and... yep, this game works in exactly the same way as the one on the far left. The scouts earn less in this though.

Summary I'm sorry but this is *1st Division Manager* without the pretty pictures and no-one is going to tell us any different. And *1st Division Manager* without the pretty pictures is like crisps without flavouring. Dull.

30%



■ Similar to *1st Division Manager*, the match sequence in *The Match* is reasonable enough, we s'pose.

Track Suit Manager
Hi-Tec • £3.99

Background The only game of the six that's based on being a national team manager. Take control of England (or another country, if you don't mind spending an hour typing all the player details in) and try to win the European Championships. Can you do better than Graham Taylor, or are you completely stupid?

Options Lots of tactics, both for the team and for individual players. Reports on the players as well, after all being an manager is all about man management really anyway. (*Er...*)

Matchday Most odd. The commentary is the sort of thing we're used to, but the graphic representation of the game is just a bar that moves left and right a small pitch, in line with the ebb and flow of the game. Or rather, not. That little bar seems to have a mind all of its own.

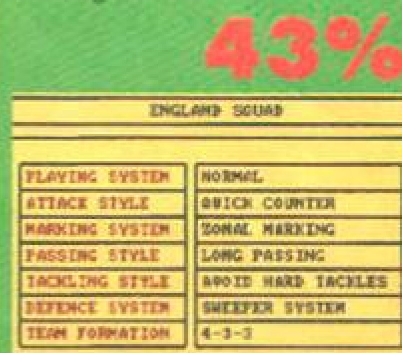
Pros Probably the best international management sim around, though that's not saying much. A massive array of tactics are at your disposal and you soon start seeing your team in the same way that teacher sees their pupils.

Cons "No finance, no administration" shouts the box. Sorry, but when you narrow down the field of play you narrow down the appeal. There just isn't the day-to-day involvement that makes management sims so addictive.

Tactic Spy on the opposition and try out as many players as you can early on. That's what Graham reckons anyway, but why should we listen to him?

Summary This went down a storm with most of the computer press. Why? There's so little to do as an international manager for a start. We want gate receipts and transfer markets and things like that.

43%



■ Tactics ahoy! There's a lot of tactical decisions to be made in this average internationals sim.

and the rest...

The following are not included in the following list: a lot of D & H/Cult games (due to lack of space and over familiarity); games with an arcade element, allowing you to play as well as manage (eg *Gary Lineker's Superstar Soccer, Football Manager World Cup, Manchester United, Manchester United Europe*); football arcade games; anything we've forgotten or never knew about. So what is included in the list then? All this lot, actually...

the big list

1ST DIVISION MANAGER	
CodeMasters	54%
CUP FOOTBALL	
D & H Games	36%
FOOTBALL DIRECTOR	
D & H Games	50%
FOOTBALL MANAGER	
Addictive	64%
FOOTBALL MANAGER 2	
Addictive	81%
INTERNATIONAL MANAGER	
D & H Games	29%
KENNY DALGLISH SOCCER MNG	
Cognito	85%
LEAGUE CHALLENGE	
Atlantis	12%
ON THE BENCH	
D & H Games	42%
SOCCER 6128	
Graham McQuoid	51%
SOCCER BOSS	
Alternative	66%
SOCCER DIRECTOR	
GTI	31%
SOCCER STAR	
D & H Games	54%
THE FOOTBALLER	
D & H Games	38%
THE MATCH	
D & H Games	30%
TRACK SUIT MANAGER	
Hi-Tec	43%
TREBLE CHAMPIONS	
Challenge	46%
WORLD SOCCER	
Zeppelin	72%

ring their bell

ADDICTIVE	081-804 8100
ALTERNATIVE	0977 797777
ATLANTIS	0732 465511
CODEMASTERS	0926 814132
D & H GAMES	0462 816411
HI-TEC	0742 587555

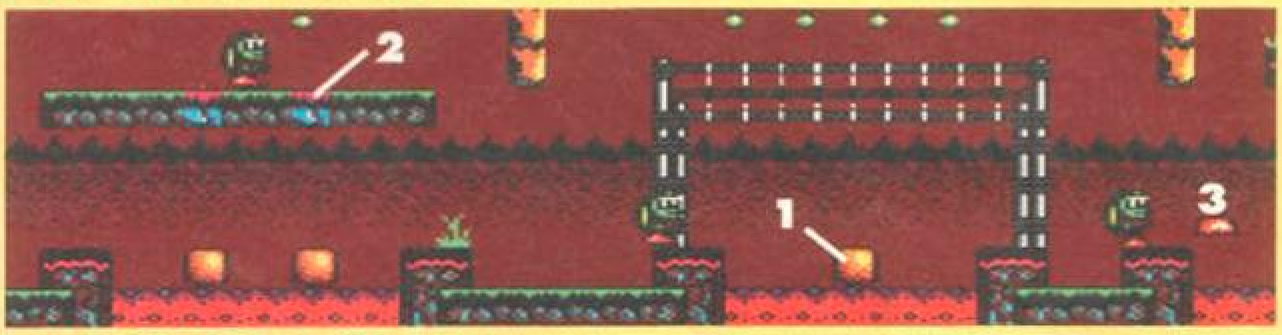
freeze frame

a Level Journey

TURB

There are six different levels – or zones – in the game, each representing a different time zone. They have varying graphic styles and a selection of different hazards abound. Here's a quick tour round a snippet of each zone, to give you some sort of an idea as to what to expect...

LEVEL ONE: PREHISTORIC ZONE



■ Somewhat reminiscent of Titus' *Prehistorik* with its scenery of caves, grass platforms and lava-filled rivers, this level sees only a small number of foes (a couple of cavemen and grandpa tortoise), some simple hazards to get you in the mood, and loads of bonus blobs. **TIPS:** The main hazards on this level are stepping stones that sink into the sea (1) and bits of platform that crumble under your feet (2). Use the bright red saucers as lifts (3).

LEVEL TWO: ICE AGE ZONE



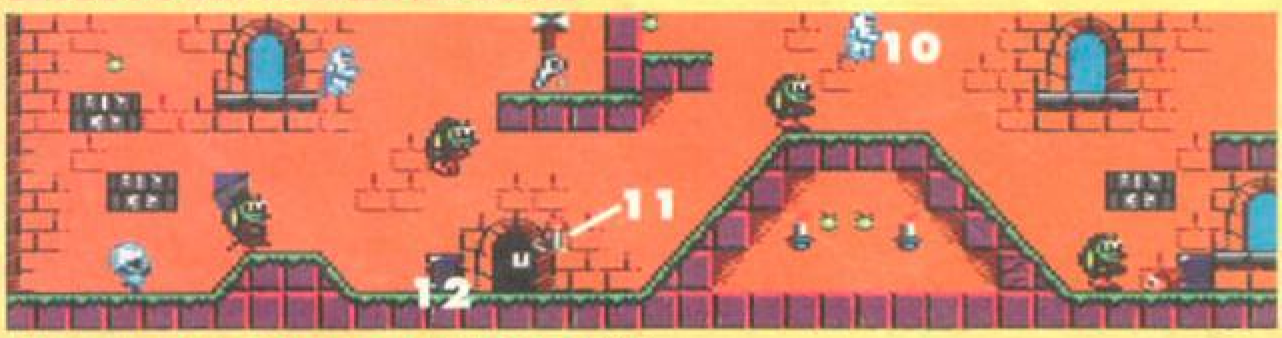
■ Things get a bit more hectic on the second level as a load of enemies pile out to meet you; ice-people, walruses (we think) – all your worst refrigerated nightmares. The scenery also gets trickier, becoming a lot more maze-like. **TIPS:** As granny used to say (before they took her away), "beware of flying fish" (4). Don't be afraid to crawl when the way gets narrow (5), and don't forget those extra bullets (6). And watch out for falling icicles!

LEVEL THREE: EGYPTIAN ZONE



■ Walk like an egyp-tian. It's the time of the Pharaohs all of a sudden, and everywhere seems to be covered in short dudes with big helmets on. The scenery's nice and bright, but the helmet-heads are encouragingly thick. **TIPS:** Watch out for sphinxes that spit fireballs (7) and spikes that shoot out of the ground (8). When the path ahead seems to be blocked, keep an eye out for fake marble blocks (9) that you can walk through. Or fall through.

LEVEL FOUR: MEDIEVAL ZONE



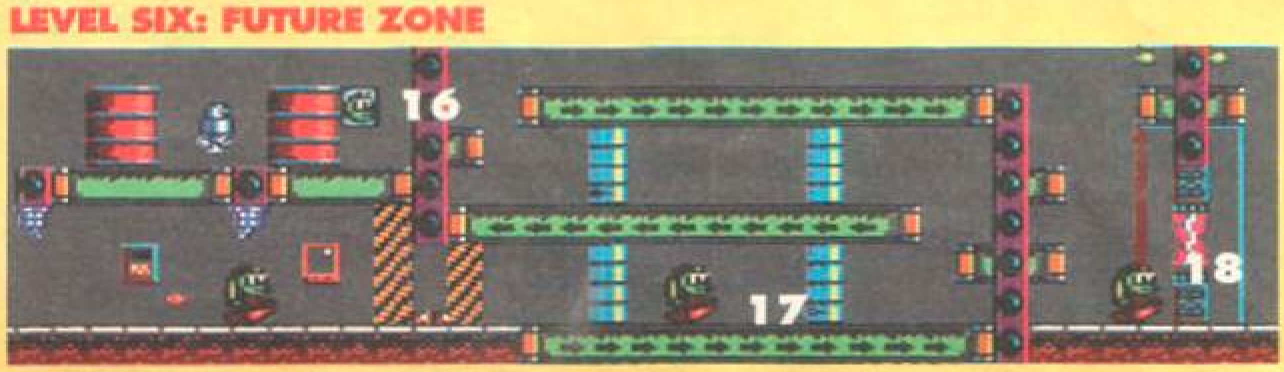
■ The fourth zone starts off with a fairly dull wander through a creature-packed and obstacle-less Sherwood Forest. Things return to normal when you reach a castle and discover that it's ever so slightly haunted. **TIPS:** There are tons of different enemies lurking in the Middle Ages, most notably zig-zagging witches and ghosties (10) and self-propelled airborne candles (11). On a positive note, there are some springs to go bouncing on (12).

LEVEL FIVE: 20TH CENTURY ZONE



■ Ah, back to the present day. Trusty old bricks and mortar, covered in graffiti (except they forgot the graffiti). Poor old Turbo doesn't find the present day any less trouble-strewn than his jaunts through history though. **TIPS:** The enemies here are fairly predictable, they just wander back and forth. Land-based adversaries include film reels and rotweilers (13), whilst birds cack acid from the sky (14). Chomp up those bonus points pills (15).

LEVEL SIX: FUTURE ZONE



■ Technofear! This level is about structural hazards not physical opponents. There's laser beams, mashers, boxes, barrels and more. **TIPS:** Look out, it's a dangerous place. Firstly, there are a lot of very annoying metal walls that you can't get past (16). Then throw in some nasty one-way escalators (17) and some big, bad electric things (18). A bit duller than earlier levels, but darned tricky nonetheless.

O THE TORTOISE

HI-TEC • 0742 587555 • £3.99 CASSETTE

RAVE

There's an awful lot of nocturnal creatures making it big in the world of home computing at the moment; Turbo the Tortoise, Titus the Fox, Sonic the Hedgehog, Oswald the Aardvark... *(Oswald the Aardvark? I've never heard of Oswald the Aardvark – ed.)* Turbo may be the most recent addition to the fold, but he's already starting to make an impression with his excellent platforming around. When night falls in Britain now, it's move over foxes, hedgehogs and aardvarks – the tortoise is here! *(There's never been a game about Oswald the Aardvark, Adam. You just made that up, I'm sure of it. And anyway, tortoises aren't nocturnal – ed.)*

Turbo the Tortoise is on the face of it a very run-of-the-mill platformer. The graphics might be quite sweet, especially the variety of styles between the different levels, but the game itself is just a simple running and jumping thing, right? You've got a gun at your disposal but your main method of despatching the enemy is the old 'jumping on their head' standby. Nothing special, huh?

WRONG! *Turbo* is one of the best platform games we've seen in ages. For a start, it's very neat. There's no complex controls, no convoluted plot, no over-taxing mission and no mapping necessary. It's a straightforward sideways scroller. *(Ossie Aardvark? Are you sure you're not thinking of Ossie Ardilles? I don't think there was a game about him either though – ed.)*

The difficulty level seems to have been pitched just right. Whilst the end-of-level guardians are perhaps a bit over-strong (that's a sad fact of most platformers), practice and concentration will see you progress every time you play.

The game also has a load of other features that help chalk up the points in its favour; a different weapon for Turbo on each level, secret (but easily found) bonus rooms, loads of power-ups... the list goes on and on. Er, well actually it doesn't. It stops with 'power-ups', that's why I put those three dots there. *(Of course I suppose it might be a game that hasn't been released yet, which I haven't heard of. But hey, who'd really want to produce a game about an aardvark, it's such a silly idea – ed.)*

Sound is limited to a few typical computer bleeps, but the graphics deserve plenty praise. Very colourful, varied and smooth, if a smidgeon slow. It doesn't quite match up to the sheer depth of play found in Hi-Tec's other recent platformer, *Potsworth & Co*, but it still smacks of class and is one of Hi-Tec's few titles not relying on the popularity of a Hanna-Barbera cartoon character for its sales. *(But all aardvarks do is eat ants. What sort of game is that going to be, then? "Playing the powerful, muscular Oswald, you have to wander round a cave eating ants till the sun comes out and you go to bed." Pure action that, I'll be first in the queue for a copy I DON'T THINK – ed.)*

Turbo is fearsomely addictive and suitably varied. The strength of the guardians (you have to jump on their – moving – heads several times before they cop it) is a bit of a problem, but once you've sussed their movement pattern and got your timing worked out, you should be a match for any of them. Excellent. *(I suppose you could have them hunting out termite mounds, like in an arcade adventure. That might be quite good that – ed.)* Rod... *(And you'd have to run away from lions and leopards and cheetahs and other things that prey on aardvarks – ed.)* Rod... *(What? – ed.)* That bit about Ossie the Aardvark was a joke. *(It was? Er... I mean, I knew that. Of course I did. Ho ho ho. Now, have we got anything in to review for the centre pages yet? – ed.)*

Adam Peters

see SHELLS

hard facts

When we phoned Future Publishing's Small Mammals Consultant to ask about tortoises, he told us that they were Chilean. This quite excited us. We had all these visions of tortoises going round privatising copper industries and joining military juntas. Sadly it was a dodgy phone line and we'd misheard. In fact, tortoises are from the *Chelloni* family of mammals, a posse that also includes turtles.

So what's the difference between tortoises and turtles then? Well, tortoises are smaller and are more likely to sink if you drop them in the bath. Oh yes, and turtles wear headbands and shout "cowabunga!" at regular intervals.

FIRST DAY TARGET SCORE

Wax the first guardian

SECOND OPINION

"I don't like tortoises much, because they don't chase sticks and bark at strangers. I don't like dogs either. Very good game, by the way."

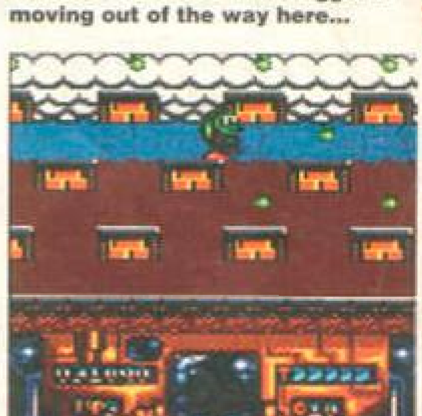
ROD LAWTON



■ Cavepeople with mohicans are just one of the nasty foe-types out to make you tortoise mince.



■ Jeepers! The *Big Boys' Book of End-of-Level Guardians* suggests moving out of the way here...



■ Each level includes a short bonus stage where you can leap about picking up bonus blobs.



■ Here we are in amongst all the helmet-heads and green platforms in sunny Ancient Egypt.

graphics 93%
Lovely and bright. Detailed sprites with lots of colour and six distinct styles.

sonics 62%
Average computer noises, really. A wide selection of effects, but nothing special.

grab factor 92%
Very easy to get started with, this is so tidily put together you'll be into it within seconds...

staying power 85%
...and the strength of the guardians and different obstacles makes it a real stayer.

88% VERDICT

Action Replay

Next month *Action Replay* leaps to three pages in size. This month ADAM PETERS struggles to pack as much as possible into only two. Take it away, Spotty...

CASTLE MASTER

HIT SQUAD • £3.99

MASTERGAME

Freescape – the most inventive game style ever or a tedious pile of old boxes? The choice, dear readers, is yours. But first let's hear the evidence from both sides...

Innovation: The Freescape 3D environment is the closest we have ever come to virtual reality on a home computer. It allows the player to explore every aspect of the world they're placed in, and its detailed 3D style really lets you feel that you're 'there'. The games are very involving and very challenging.

Old boxes: Limited colour and a load of dull rectangles is hardly the graphics breakthrough of the century. The games themselves mainly involves tiresome walking, including lots of back-tracking. There are no real enemies to be found and anyone brought up on arcade blasters will find these games mighty uninspiring.

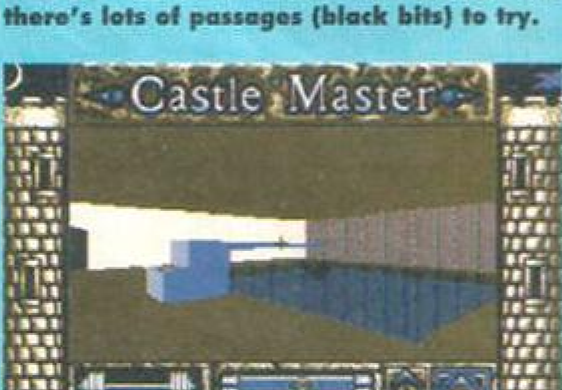
So that's that, but how does *Castle Master* fit into all this? The most popular and most critically acclaimed of the Freescapers, *CM* contains some of the best 3D graphics ever and is a lot easier to get started in than most of the games that went before it. If you don't like this one, you won't like any of the Freescape games. This is as good as they get.

Castle Master has to score loads for the sheer technical perfection. It's impossible to fault really, but be warned: at least one of the *AA* crew casts their vote firmly on the side of the 'tedious load of old boxes' argument. It's a nice game for Balrogites and Dizzy fans, but those without the commitment to see a game through to the end will be wasting their money on this one. Sorry, but there you go.

AA 91% VERDICT



■ Here we are, inside the castle, and there's lots of passages (black bits) to try.



■ Excellent, a swimming pool! Little chance of going for a dip without drowning, mind.

CRACK DOWN

KIXX • £3.99

RAVE

As crack mercenaries (that's crack: very good, not crack: cocaine), you have to battle the evil Dr K. •Stop• *Why has this bloke decided to call himself Dr K? He is, we assume, planning to take over the world. With a name like 'Dr K' everyone's going to realise he's trying to take over the world, since that's all that people called Dr K ever do. In order to avert suspicion, so he can use public transport without being*



■ Split-screen two player games are usually crap (cf *Bonanza Bros*) but this one's fab.

nicked by the secret service (for example), why doesn't he call himself something else? Like Fred Jones or Bob Wiggins, for instance. Berk. •Okay, carry on• You have some bombs to plant. There can be two of you or only one of you, but a two-player game is a lot more fun and you don't waste half the screen.

Right, that's the background nonsense over with. Now what about the game? Well, if you're an old fogie (like wot we are) you might remember the game *Sabotage* on the ZX81. This is a similar sort of idea. You get an overhead view of a complex and have to rush around it priming bombs by running over them. (Not the safest way to prime a bomb, if you ask us.)

Crack Down is actually quite good fun. The map at the top of the screen shows you where the bad guys are, but any notion of tactics takes a back seat to plain mindless blasting. With two players it gets even more manic. The multi-load is a nightmare, but ignoring that, this game is most unbogus indeed.

AA 83% VERDICT

ITALY 1990

KIXX • £3.99

MASTERGAME

What can we say? "This is *AA*'s favourite football game of all time" is one of the things we could say. We'd then have to explain why, though, and we'd probably come up with something along the lines of: "It's fast. Very fast. Faster than a very fast thing that's been having lessons to improve its speed and is also in a real hurry anyway. It's fast."

We could then add: "The team's from the 1990 World Cup all appear in their correct colours and display something aspiring to the correct skill level for the team in question." (This was all programmed before the competition took place of course, so the mighty Cameroon are as crap as Western ignorance originally expected them to be.)

Maybe then we could come up with a speech like this: "The game might not have the tactical depth of, say, *Emlyn Hughes' International Soccer* (also out on budget at the moment), but as an action-packed footie arcade game it could hardly be any better. The speed really is incredible, and it's dead smooth to boot." ('To boot', geddit? – oh, never mind.)

Under some obligation to point out the negative aspects, we'd add: "Experienced gamesters will find it easy to beat when playing one of the top teams, in which case they should then try it as South Korea."

Having said all that, there would be little else to say, other than: "It's overhead viewed, the goals are at the top and bottom of the screen, the opponents range from soppy to rock hard, it's a brilliant game... and it's fast. Very fast. Faster than..."

AA 90% VERDICT



■ Corner, that's never a corner! You must be blind, ref. What did they pay you? (etc)

KLAX

HIT SQUAD • £3.99

Some people are really puzzled by puzzle games. "What's the point?" they say: "with all that technology at my disposal I want fast, colourful all-action game-play, not something that would work just as well on the ZX80." To an extent, those people (Mr & Mrs Richards of Solihull, John Townsend of Fife, you



■ **We've got a couple of piles on here (*see a doctor – ed*), white and green (*ugh! – ed*).**

know who you are) are right. A lot of puzzlers on home computers are just games that are available in paper and plastic from your local toy shop, re-arranged so that a computer opponent can take the place of a brother or school chum.

On the other hand, there are some puzzle games that were designed specifically for computers. Games that could quite comfortably spend the night with words like 'fast', 'colourful' and 'all-action'. *Tetris* is one, and this baby *Klax* is another.

Chances are you know what this game is about anyway. For those that don't, here's a minimalist explanation: coloured blocks – bat – collect blocks on bat – move bat – drop blocks – blocks match blocks disappear – points – enough matches next level – blocks reach top lose life.

It's a hectic game, which many people rate higher than (the more tactical) *Tetris*, and there's far worse things you could do with your time (washing up).

AA 74% VERDICT



■ **Nowhere to drop this one. Having two red piles and two blue piles doesn't help much.**

MIDNIGHT RESISTANCE

HIT SQUAD • £3.99

RAVE

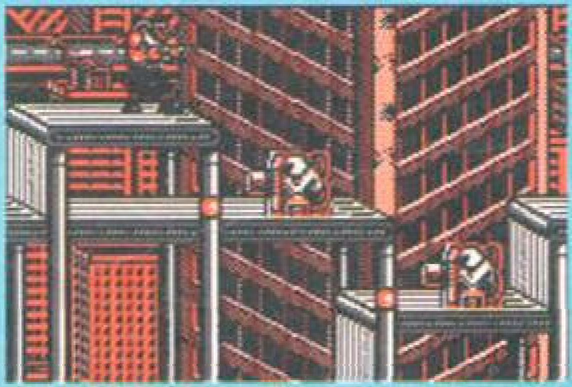
Strap on your big guns, chums, it's time for to wrap a girlie bow in your hair and pretend to be Rambo. *Midnight Resistance* is an excellent shootie. The graphics suffer from a serious case of Spectrumitis, but this doesn't detract from the action at all.

There are a lot (and we mean a lot) of foes involved, and you'll really need your wits – as well as your machine gun – about you. Enemy gunners often get a shot in at you within seconds of them scrolling on to the screen (before you've even registered their presence), so a lot of practice and a good memory is the way to succeed.

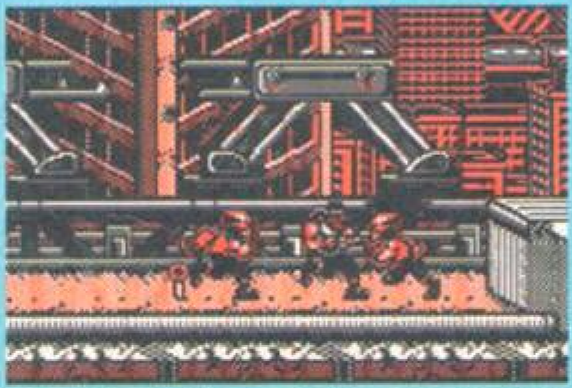
As well as other foot soldiers, there are tanks, copters and all sorts of other serious hardware around, and everything has got the same mission: kill the reckless geek with the girlie bow in his hair.

Midnight Resistance is a shoot-em-up as shoot-em-ups should be. Action-packed, challenging and with enough reliance on tactics and brain-power to set it above the rest of the herd. We recommend you invest four quid in this game, you'll n'ae regret it.

AA 86% VERDICT



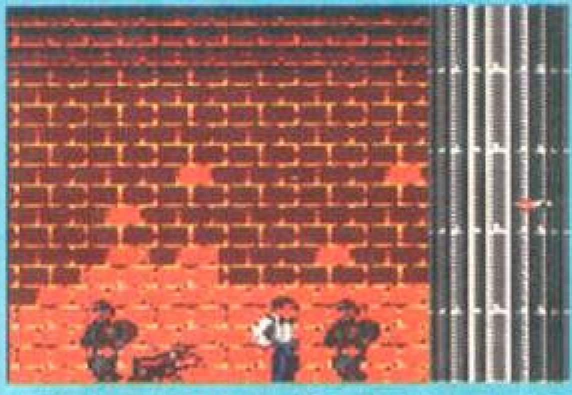
■ **Yikes! Loads of machine gunner type people. Fire diagonally down to wax the gets.**



■ **Top Tip: Running straight into bad guys is not good for your health (ie energy level).**



■ **The motorbike level is just about the best bit in *Sly Spy*, but even that's not much cop.**



■ **It's no use just standing there and going pacifist on us Sly, shoot the swine you fool.**

SLY SPY

HIT SQUAD • £3.99

Get ready to have a really puzzled expression on your face, the first level of *Sly Spy* is just too silly for words. I can't draw cartoons though, so words it'll have to be. The screen shows sky (you can tell it's sky because it's blue and full of clouds). A character in a tuxedo falls downwards in a stupid manner, before levelling out into a prone position. This is you. A few other dudes in more sensible skywear also fall stupidly downwards. These are the baddies. It's a free-falling shoot-out. Hurrah (not)!

There's little chance of the enemies actually hitting you with a bullet, (un) fortunately, so you simply have to pop up and down into their line and pick them off. The real challenge is to see if you can finish this and get on to the (slightly more sensible) later levels without falling to the floor in hysterics and wetting yourself at the sheer idiocy of it all.

The games does gets a bit better later on, with the action thankfully ground-based. As well as on-foot action, there's also the prospect of some motorbike combat and more.

The whole thing is still terribly slow though, the sprites are too big and the bad guys are too easy to pick off. And also it's all so clumsily stupid and stupidly clumsy.

A percentage score tells part of the story, but often it's better to include a daft analogy too, so with that in mind, here's a daft analogy: I would far rather stick my head into a bucket of warm porridge than ever play *Sly Spy* again. And I don't like porridge.

AA 31% VERDICT

Next Month in *Action Replay*: *Cyberball, Emlyn Hughes' International Soccer, International 3D Tennis, Pro Tennis Tour, Nightbreed, Silent Service, Supercars* and more...

ring their bell

Having trouble getting hold of the games? Why not ring the publishers and ask for the address of your nearest stockist...

HIT SQUAD • 061-832 6633

KIXX • 021-625 3388

CAPTAIN DYNAMO

CODEMASTERS • 0926 814132 • £3.99 TAPE



■ If you think level one looks a bit tough, just wait till level two...



■ Loads of lovely diamonds! Oh yes, and a couple of killer fans.

What do you get if you cross a series of vertical levels strewn with hazards with an old duffer in a cat-suit? A horrible mess to clear up? NO, what you actually get is a reasonably good platform game.

The plot involves some equally decrepit villain nicking your mate's diamonds and flying off to the moon (to buy cheese?) with them, but we'll just ignore that and concentrate on the game itself.

It's difficult. The puzzles are all old style well-timed jump affairs (cf Manic Miner, Technician Ted, and recently The Addams Family), which take a lot of practice and just as much patience. You get the standard three lives and no continues, so you've got to be prepared to slog real hard if you want to progress at all.

The game moves a bit slowly, and as we've said, the gameplay is very much class of '83. But if you're the sort of the person who reckons themselves to be a really ace games player, this little beast is going to test you out a lot more than the latest urban beat-em-up.

Some of the puzzles appear impossible, and many people might be tempted to give up when they hit one of these. But it can be done. If you're having problems with the first level, the guide to the right may help you out a little, but after that you're on your own. This is a game that's for battle-hardened gamesters only. No Sunday drivers.

Adam Peters

SECOND OPINION

"Captain Dynamo is mighty tougher. Tougher than a three month old piece of cheddar, in fact. But stick with it, it's a pretty decent little game"

ROD LAWTON

hard facts: DON'T BELIEVE THE HYPE

CodeMasters are a sweet enough buch of dudes, but they aren't always accurate in what they tell you. In Bubble Dizzy, for example, they made out that balloons could burst underwater. Patently untrue.

There's a few porkies going round in Captain Dynamo too. For a start, old people can't fly. They can moan about prices, go on about the war and complain about young people, sure. They're really good at all those things, but as for flying? No way, I'm sure of it. The Codies might try the 'weightlessness' (on the moon) argument, but what about a space suit... (Snip! – concerned ed.)

FIRST DAY TARGET SCORE

Complete the first level (see map)

tips & tactics: GOING UP...

Well, you can't say we take the easy way out when it comes to reviewing games. Here's the whole of level one of Dynamo grabbed and stuck together. Special thanks to our Vertically Scrolling Lunar Platform Games Consultant, Jon Pillar...



graphics 72%
Four-colour Speccy port graphics, but very detailed and scrolls smoothly (if slowly).

sonics 61%
A load of spacey whirry bleepy *Dr Who* noises accompanies the lunar action.

grab factor 64%
It's difficult, chums. You'll need all your olde worlde platforming skills to the fore.

staying power 72%
If you can stick with it, the challenges get harder and your determination rises.

68% VERDICT

cheat mode

We've gone Solution bonkers this issue! (Must be this famous summer madness.) Counting the second part of our *Sphinx Jinx* walk-through, we show you the way through no fewer than FIVE games. Your host, as ever, is PHIL HOWARD. Remember, send your pokes, tips, solutions and passwords to: Cheat Mode, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW...

Lopears:
COMPLETE SOLUTION

It's certainly turned out to be a solution month, they seem to be breeding like rabbits in this issue! Here's the complete solution to *Lopears*, from Matthew Brekon of Poole...

1. Go past the two rabbit holes until you come to the bucket
2. Take the bucket
3. Return to the rabbit holes and go down the first one you come to
4. Go right and take the key
5. On the next screen, jump up on the boxes and out of the hole
6. Go left past the shed to the pond
7. Move right to the edge and use the bucket
8. Return to the rabbit hole
9. Keep going right until you get the the next lot of boxes. Drop the bucket and jump on the boxes
10. Go left past the shed, take the lettuce and return to the rabbit hole
11. Go right and give the lettuce to the unfriendly rabbit; he will leave you alone
12. Continue right and jump the rabbit hole
13. Go left until you come to the post box, use the key, go back for the scissors, take the ▶

Multiface Mischief: Guadalcanal

Multiface miracle-man Paul Williams from Broomhall has put his mind to Activision's *Guadalcanal* and given it a sound poking in his regular and complete fashion. Once again you can do just about anything you like to weigh the odds in your favour.

● SCENARIO 1

Japanese Fleet info

9CE1	Destroyers	) Transport
9CE2	Transporters	) Group
9C19-9C1D	See Fleet list	) Raiding
9C1E	Destroyers	) Group
9C9B-9C9F	See Fleet list	) Support
9CA0	Destroyers	) Group
9C5A-9C5E	See Fleet list	) Carrier
9C5F	Destroyers	) Group

Poke the following addresses with 00 – FF to change status:

Japanese Divisions

2nd Infantry Status

9E87	Ammo
9E88	Arms
9E89	Malaria
9E8A	Morale

1st Infantry Status

9EC8	Ammo
9EC9	Arms
9ECA	Malaria
9ECB	Morale

American Divisions

1st Infantry Marine Status

9A86	Ammo
9A87	Arms
9A88	Malaria
9A89	Morale

1st Infantry Marine Supply

9A94	Ammo
9A95	Arms
9A96	Malaria
9A97	Morale

2nd Infantry Marine Status

9AC7	Ammo
9AC8	Arms
9AC9	Malaria
9ACA	Morale

American Fleet info

9810 - 9814	See Fleet list	) T.F.16
9815	Destroyers	)
9851 - 9853	See Fleet list	) T.F.64
9854	Destroyers	)
978E - 9792	See Fleet list	) T.F.67
9793	Destroyers	)
9794	Transporters	)

T.F.67 Supplies poke between 00 and FF

979D	Troops
979E	Ammo
979F	Arms
97A0	Medical
97A1	General
97A2	Aviation Fuel

Fleet list

Poke	Type	Name
01	AIRCRAFT CARRIER	ENTERPRISE
02	HEAVY CRUISER	BOISE
03	AIRCRAFT CARRIER	HORNET
04	BATTLESHIP	WASHINGTON
05	BATTLESHIP	SOUTH DAKOTA
06	HEAVY CRUISER	SAN FRAN-CISCO
07	HEAVY CRUISER	PENSACOLA
08	HEAVY CRUISER	PORTLAND
09	HEAVY CRUISER	NORTHAMPTON
0A	LIGHT CRUISER	HELENA
0B	LIGHT CRUISER	JUNEAU
0C	LIGHT CRUISER	ATLANTA
0D	LIGHT CRUISER	SANDIEGO
0E	AIRCRAFT CARRIER	JUNYO
0F	AIRCRAFT CARRIER	HIYO
10	AIRCRAFT CARRIER	SHOKAKU
11	BATTLESHIP	HIEI
12	BATTLESHIP	KIRISHIMA
13	BATTLESHIP	KONGO
14	BATTLESHIP	HARUNA
15	HEAVY CRUISER	TONE
16	HEAVY CRUISER	ATAGO
17	HEAVY CRUISER	TAKAO
18	HEAVY CRUISER	CHOKAI
19	HEAVY CRUISER	KINUGASA
1A	HEAVY CRUISER	SUZUYA
1B	HEAVY CRUISER	MAYA
1C	LIGHT CRUISER	NAGARA
1D	LIGHT CRUISER	SENDAI
1E	LIGHT CRUISER	ISUZU
1F	LIGHT CRUISER	TENRYU

● SCENARIO 2

All addresses stay the same. The American Fleet has an addition:

97CF - 97D3	See Fleet list	) T.F.17
97D4	Destroyers	)

scissors, mix the objects and drop the scissors

14. Go left to the tin opener and take it
15. Return to the rabbit hole and go down
16. Hop left to the first set of boxes, jump up and outside
17. Go left until you come to a tin box, drop the football, take the tin box and mix the objects
18. Drop the tin opener, take the football and go back to the rabbit hole
19. right to the rabbit, drop the football, take the pump and mix the objects
20. Drop the pump and take the football
21. Go to the pond (where you filled the bucket) and use the football. When at the other side drop the football and go to the tree with the acorn
22. Use the balloon, take the acorn and jump down from the tree
23. Drop the balloon and take the football
24. Go back across the pond and down the rabbit hole
25. Hop back for the bucket, then go left and jump up the last rabbit hole you come to
26. Go right until you come to the squirrel and use the acorn then take the bone
27. Return to the two rabbit holes and drop down the second one
28. Go left up the rabbit hole and keep going until you come to a flame on the rock
29. Use the bucket. Go past it the rock and up to your family – well done, you have completed *Lopears!*

Slightly Magic:
COMPLETE SOLUTION

WINNER! £10

Slightly Magic is next on the solution chopping block. It's been worked out, written down and sent in by Joe Moulding of Balsall Common, Coventry.

1. Take the bucket of water and give it to the Dragon on the starting screen
2. Go left then take the other bucket and give that to the dragon
3. Take the bucket and the megaphone. Drop the megaphone on the starting screen and use the bucket on the third dragon
4. Fall down into the dungeon to the left and take the pebbles and the skull. Give the pebbles to the rock and climb up to the surface by jumping on the dots
5. Take the magnet
6. Drop the skull on the starting screen
7. Go past the small dragon on the right
8. Jump up to the ledge and jump along until you reach the screen with the pin
9. Climb the ladder and get the Fright spell-off
10. Walk along into the spell book
11. Return to the dungeons and pop the bubble with the Pin
12. Take the wand
13. Pick the skull up again and jump up to the ghosts
14. Use the Fright spell-on, and spook the ghosts *(cont. on p38)*

WINNER! £10

Total Eclipse II: (AA78 covertape)
Complete solution – part 2

Last month we brought you part 1 of the complete solution to the *AA78* covertape game. This month, part 2...

You arrive in Thebes – D. Climb down from the teleporter and walk north, you will trip over a small step on the ground which will cause you to spill about half your water. There is nothing you can do about it but if you topped up your supply in Selquet – C you should have enough to last.

You will see a door at the top of the north wall; a small inverted pyramid is on the floor to its right. Position yourself below the door, away from the wall, then shoot the pyramid and some steps will appear. Quickly go up the steps and through the door into Thebes – C.

Walk forwards and through the door on the far wall into Thebes – B. This is the invisible wall room – save your position here (you'll need it!).

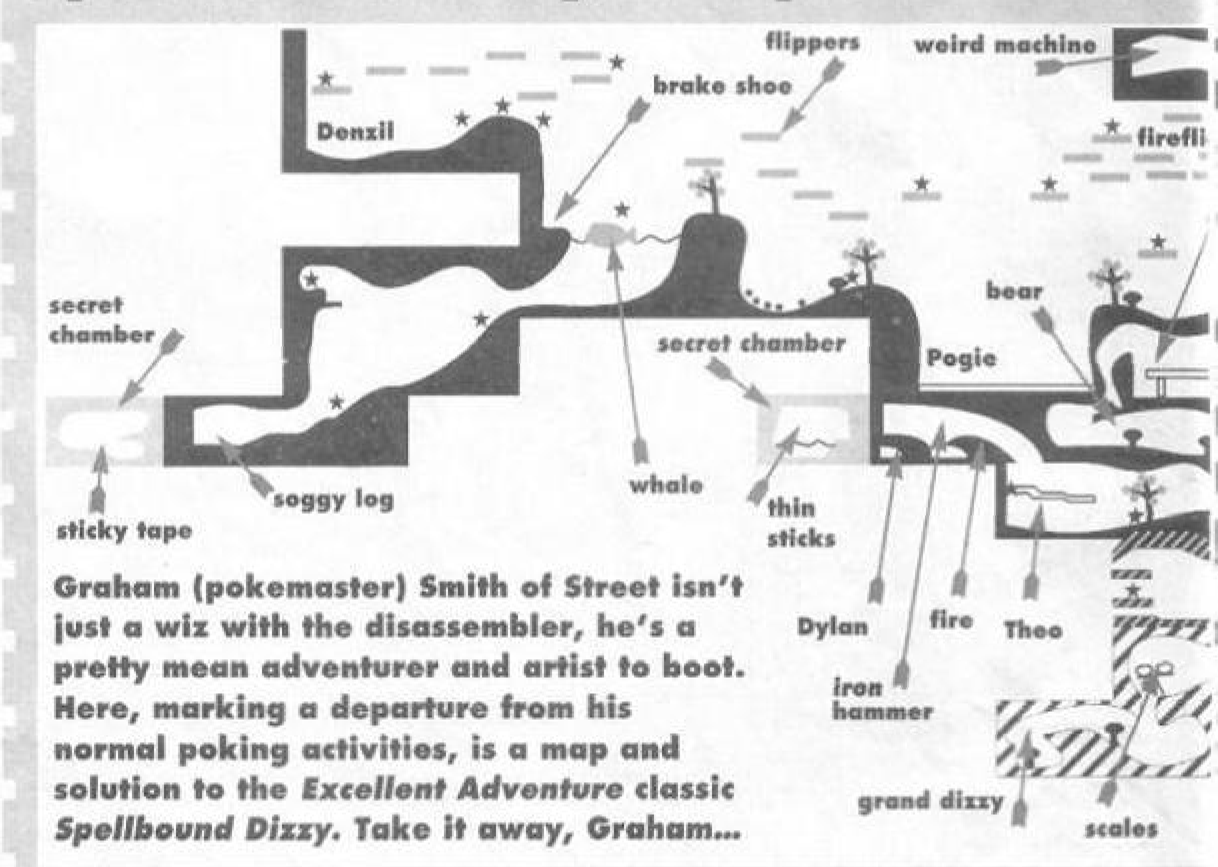
Yep, you've guessed it the invisible wall room is a real stinker. It's really an invisible wall maze with invisible steps! You have to climb the invisible steps and walk along the top of the invisible walls which eventually lead you to the door at the other end. Its best to map out the position of the walls on some graph paper. In there somewhere you will stumble on a gunshot type noise; crawl when you hear this.

Moving swiftly along, you should now arrive at Thebes – A (or destroyed the tape forever!). Fill your flask with water and get first aid for your aching head, and get the Sphinx part.

Return to Thebes – B and save your position. Getting out is considerably easier than getting in! Go to the east wall, face south and walk forwards, you will climb invisible steps and fall the other side. Climb the visible steps and exit to Thebes – C.

Go to the west wall, just behind the Sphinx part and face south, you should be able to see a door, if not, walk backwards until you can. Turn yourself slightly to the right and walk into the wall (same method as used in Jinx – B) you should get to the door without it

Spellbound Dizzy: complete solution



Graham (pokemaster) Smith of Street isn't just a wiz with the disassembler, he's a pretty mean adventurer and artist to boot. Here, marking a departure from his normal poking activities, is a map and solution to the *Excellent Adventure* classic *Spellbound Dizzy*. Take it away, Graham...

1. You can store rocks on the clouds
2. When getting down from cloud try to land in water or on trampette to avoid losing energy
3. Rocks let you go down the windy shaft – the more you have the further you can descend
4. The umbrella negates the effect of one rock
5. Using the hammer, bash the track straight
6. Fix the brake shoe on the cart and take a ride to get bag, megaphone and gold shamrock
7. Drop rock on the right side of the scales
8. Get ear trumpet from Grand Dizzy
9. Use megaphone to shout to Dylan and use ear trumpet to listen to the answer
10. Get vibes
11. Get thin sticks from secret chamber

The Sphinx Jinx

being covered, to arrive in Behbet – D.

You are standing on a ledge; on the wall beside you is an Ankh; collect it. DO NOT unlock the door to the west, simply drop off the ledge and go through the unlocked door to Behbet – C. To avoid getting hit by lasers walk around the perimeter of the room rather than straight across. GO through the door into Osiris – D. Look up to the ceiling you will see a block, shoot it and it will disappear. Now go through the door to the west and enter Behbet – B.

Keep going west through the next door to Behbet – A, keep on through the next door to Selquet – C, but hurry, the ceiling is coming down on you!

You are now back in Selquet – C , fill up with water if you need to and go back to Selquet – D. Use the teleport to Thebes – B, this time stand on the block facing south and go through the small hole leading to Thebes – E. Collect the Sphinx part and go to the far door, walk into it, unlock and enter Thebes – F.

From Thebes – F make you way back out to Sahara – C by going through Thebes – G up the steps to Thebes – H. Duck and crawl under the block to Entrance – A then up the steps to Sahara – C.

Make your way around the pyramids until you find a hole in the sand. Save your position, drop through the hole and you will have arrived in Osiris – D. Go up the steps and through the door, you are now in OSIRIS – E.

Collect the three Ankhs and return to Osiris – D. Go down the steps and up to the locked door, but don't open it, duck down and you will be able to crawl under the bar. You arrive at Osiris – C. Don't walk on the coloured carpet where the gold is, ignore it, and go through the door at floor level to Osiris -B. Collect the Sphinx part lying on the floor, go back through the door, up the steps and through the other door to get onto the ledge. You should have 5 Ankhs (3 from Osiris – E, one from Behbet – D and one from Selquet – C). If you haven't then you're stuck! (restart from saved position). If you do have 5 walk forwards into the floating blocks, keep walking and they will fall down to create a bridge. collect the Sphinx part and go back to Osiris – C and save your position.

You should now have 10 pieces of the Sphinx, if your heart rate is high go around the ledge and drop down onto the first aid box to slow it down.

Go up the steps to Osiris – E, drop over the ledge, U-turn and you will see an Ankh, collect it. Then go up the steps to the south and duck down. When the door opens fully go through it, you will be in Osiris – F. Collect the Sphinx part and drop over the catwalk, go through the door and you are in Sphinx – X.

Make your way to Selquet – C, go up the steps, walk into the door to unlock it and enter Selquet – B the floating block room.

The floating blocks:- follow these instructions to make your way across. Its a good idea to save your position after every stage in case you have a fatal fall.

1) Shoot the 2nd block, shoot the 3rd block (when it appears) leave the room and come back.

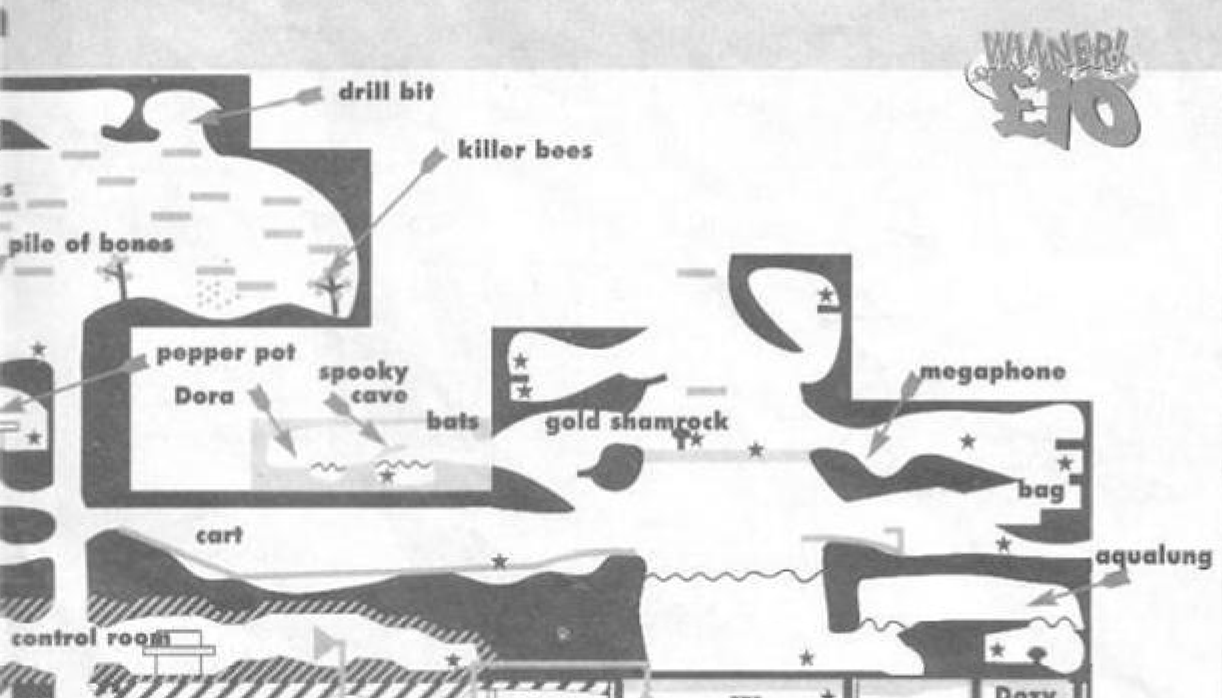
2) Go to the 6th block, you have to be very quick over the 3rd block as it disappears and re-appears every 10 seconds.

3) Go across to the 11th block, once again you have to be quick across the 7th and 8th blocks as they keep vanishing.

4) Look down slightly; when the 12th block appears step onto it, U-turn and your sights should be on the 11th, shoot it, U-turn and step onto 13.

5) Shoot the 2nd block again, step onto the 14th (if the ledge isn't there shoot the 13th block and it should appear. Step onto the ledge and go through the door into the last room Selquet – A.

Selquet – A: Duck and crawl across under the lasers, up the other steps, get the gold and stand up. Get the final piece of the Sphinx and you've lifted the Curse and completed the game.



12. Give gold shamrock to Shamus and get weird Talisman
13. take cart ride with one rock and the talisman to get aqualung
14. Use aqualung to get umbrella
15. Use aqualung to get soggy log
16. Light log by fire
17. Get empty jar
18. Get umbrella, then with the jar and log, go to the hive
19. Get honey and drop log
20. Drop honey by the bear, then while he is eating, jump past to get the bones and pepper pot
21. When the bear's finished get the empty jar
22. Use the pepper pot on whale near the right hand side of the water
23. Flippers
24. Use pepper pot on whale near left hand side of water
25. Go to Denzil and get ZX81
26. Using aqualung and flippers, get tape from secret chamber
27. With aqualung and flippers, use bones on man-eating plant
28. Get ring from Daisy and tasty seaweed
29. Go to control chamber and plug in ZX81
30. Take hammer down pipe, drop and return
31. Go down the pipe with aqualung and flippers
32. Hit chain off the end of other pipe with the iron hammer
33. Enter pipe and get the fishing net
34. Get pillow from Dozy
35. Get pretty cloth from behind tile in illusion screen
36. Get ceramic lid, then, with the jar, use umbrella in draft from windy shaft to reach higher clouds
37. Use jar to catch firefly
38. With aqualung, glowing jar and tasty seaweed, enter spooky cave
39. Drop seaweed to get rid of the bats
40. Get glass slipper from Dora
41. Use fishing net to catch Pogie and get his collar
42. When you've rescued everyone and given Theo the last five stars he will give you some string
43. Use sticks, cloth, string and tape by the top of the windy shaft to make a kite
44. Fly up to the sky to get the drill bit
45. Fix the drill bit to the weird machine to reach the end screen

15. Take the hearing spell. Collect the megaphone and the flea collar
16. Jump up to the deaf bugler and use the Hearing spell
17. Get the Flea spell and use it on the giant's head
18. Go down the mace and get the scissors, watering can and Fish spell
19. Use the scissors on the yo-yo. Get the bowl
20. Use the can on the mud. Use the Fish spell and fall into the water
21. Take the jelly and give it to the jellyfish
22. Take the detonator and the Explosive spell
23. Go as far right and down as you can go use the Explosive spell
24. Land on the clouds and collect the candlestick and the Flight spell
25. Scare the elves away with the candle and get the feather
26. Use the Flight spell and collect the water pistol, the Cooking spell and the sugar
27. Use the water pistol on the dragon; take the key
28. Use the Cooking spell on the gingerbread men
29. Take the penny and use it on the well
30. Fall down and take the sunburn lotion
31. Jump over the banana skin and give the lotion to the dragon

covertape pokes

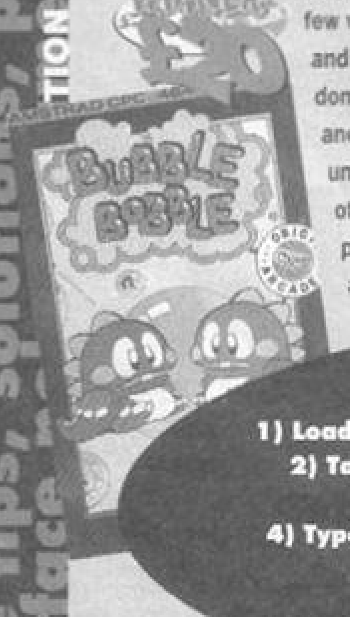
Game 'pokes' are sneaky little beasts. They're short programs which 'modify' your machine's memory, so that games can suddenly give you infinite lives, weapons and the like. But how do you know which bits of memory to poke? That's where the *Amstrad Action* experts come in... maybe one day they'll reveal their secrets, maybe not. In the meantime, on this month's covertape is another selection of dirty little cheats...

SMASH TV & TERMINATOR 2 (BOTH DISK)



Andy (the poke) Price has only done one routine for us this month but it's really excellent – it uses the Earthquake system. (He's presently working on the "Supernova" system which not only sorts out protections, but also vapourises anything within ten light years...) This is for the disk versions of *Smash TV* and *Terminator 2*... he has combined two pokes in one! *Smash TV* gets infinite lives and *Terminator 2* gets invulnerability.

BUBBLE BOBBLE, SWITCHBLADE, BOUNDER, RENEGADE I, RENEGADE III (ALL TAPE)



People are always requesting cheats for *Bubble Bobble*. It's been published in a few versions in its time, however, and unfortunately the pokes don't transfer from one to another readily! Anyway, undaunted, Stephen Matthews of Kings Lynn has supplied a poke for infinite lives which also allows you to select your level. It works on the latest tape version (Hit squad) . Also, he includes an infinite lives poke for *Switchblade* tape (The GBH version) and a few other tape oldies for good measure; *Bounder* (infinite lives) and *Renegade* (the first; infinite lives), and *Renegade III* (infinite time and lives). All for the tape versions.

DRAGON NINJA, GRYZOR, RENEGADE III (ALL DISK)



From the archive spring some all time classic pokes for some all time classic games for disk owners. In *Dragon Ninja* choose from infinite energy time, lives etc. The Gryzor poke (probably the best game ever on the CPC) gives infinite lives and retained weapons. And the disk poke for *Renegade III* supplies infinite lives and time. All of these pokes were penned originally by the mighty Mike Wong (when he was just a boy).

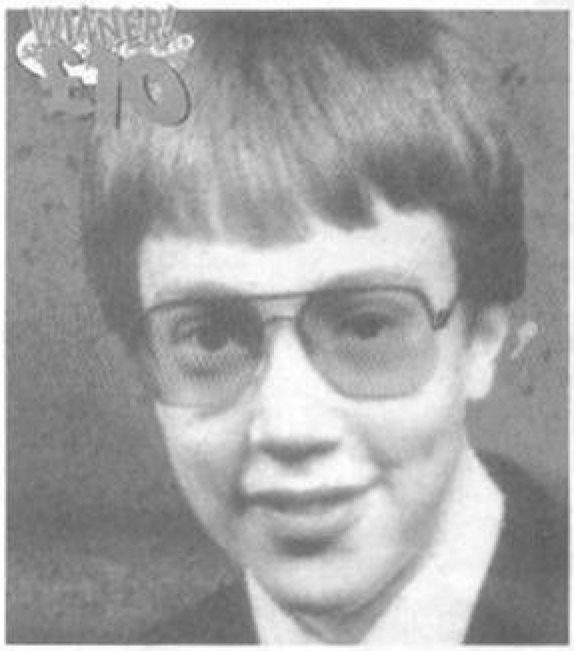
New Kids Block

1) Load the poke you want from the covertape into your computer.
2) Take out the covertape and put in your game tape or disk.
3) Type |DISC if you are using a disk poke.
4) Type RUN to run the routine (not RUN "" (CTRL+ENTER) as you normally would)

You should find that the game will load normally, or you will be given instructions on what needs to be done.

Grange Hill:
COMPLETE SOLUTION

And last, but by no means least, solution number four is for *Grange Hill*, from David Hayes Glasgow. Excuse me now while I get my throat around a pint or two of my own favourite type of solution...



1. Climb the phone box, go left and jump over the hole in the wall
2. Collect the torch and fall off the wall
3. Go left and get the fishing rod, then go back to the start
4. Go far right and get the telescope
5. Go left and down the path, left again, up the ladder and get the history book
6. Go back down the ladder and left. Stand on the history book to get the paper plane
7. Go right until you reach the chair leg. Pick it up
8. Go right again to the canal. Use the fishing rod to get the bone
9. Go to Rolf the dog and give him the bone
10. Go right and pick up the false teeth (don't drop them at any time)
11. Go right again and pick up the glass eye
12. Drop the history book and then use the paper plane (throw it at the matches)
13. Climb over the fence. Go right into the subway and get the dead cat
14. Go right, climb half way up the pole then jump across. Go right and jump the hole
15. Go right and drop down from the wall
16. Go right and use the chair leg to hit the padlock, then drop the chair leg
17. Go far left until you reach Imelda and give her the dead cat
18. Go left, jump over the bollards, left again and get the candle
19. Go back to the broken padlock (by the same route as before) and right once
20. Use the matches to light the candle
21. Go right and down then to the far right room
22. Go up the ladder, across to the next room, then up the ladder to the top, then left to below the staff room
23. Say "Give me the key" to Hollo. Climb ladder
24. Get the Walkman and then go home (Jump over Griffiths, don't just walk past him)



the Balrog

A new intro yes please A new intro yes please A new intro yes please A new intro yes please A new intro yes please A new intro yes please A new intro yes pleaseA new intro yes pleaseA new intro yes please

HELP

Stuck in a game? Or do you have some

Nick, 0934 628897

HELP! desperately needed. How do I get out of the house in *Boggit*.
David, 0737 768337

Has anyone got *ADLAN* (ROM + disk) to sell for a reasonable price? I have a 6128 with ROMBO Rombox.
Adrian, 0743 236914 after 6pm weekdays

Wanted desperately: ANY Infocom games, disk preferably. I also want *Fish* or *Guild of Thieves* for either Amstrad CPC or A3000. I will pay a good price or swap for some games. I can give help on *Jinxter*, *Big Sleaze* and a bit of *Corruption*.
Katharyne, 0481 56915

Help wanted on the following: *The Crypt*, *The Simpsons* and *Driller*. And any cheats on *Elite*!
Terry, 0590 670469

In *The Shadows of Mordor*, I have got Smeagol on my side and cannot get to the marshes. Can you please help?
John, 0992 24475

Contacting the Balg

To get in touch with the Balg, write to him at: Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2AP or e-mail at cazsjw@uk.ac.leeds.dcs.

News

news

Guild releases new games

Tony Collins of Guild Adventures has been beavering away at his keyboard to release a whole plethora of
n the impressive list of new
'e two compilations, one by
1 the other by River Software
ce of £5 on disk.
ame in the list is *Captain Cook*
ally written on the Spectrum,
ed the "best science fiction
s a two-part *PAW* game which
will set you back £4.50 on disk.

For more details/price list send an SAE to: **Guild Adventure Software, 760 Tyburn Road, Erdington, Birmingham, B24 9NX** (021 749 2585).

For tape versions, send an SAE to Peter Knowles at: **PK Graphics, 153 Standhill Crescent, New Lodge, Barnsley, South Yorkshire S71 1SW.** Tony has asked me to point out that although Guild and PK sell the old Recreation Re-creation games there is no connection with RR!

ADVENTURE post

LORDING IT

Could you tell me if *Lords of Time* is part of the *Red Moon Trilogy*. If so, do you please know of an address I could write to to buy the cassette?
Denise Palmer
Doncaster

Yep, Lords of Time is part of the *Red Moon* trilogy and should be available from Level 9 at PO Box 39, Weston-super-Mare, Avon BS24 9UR (0934 814450).

MORE CHAOS?

Is there a *Lords of Chaos Expansion Kit 2*?
Steven Winn
Maidstone

No news on *Expansion Kit 2* for *Lords of Chaos*, unfortunately. In fact, no news from Mythos/Bladesoft/Target Games at all – they seem to have completely disappeared. Does anyone know where they are?

FIGHTING MAD

I am just writing to say that FF (Fighting Fantasy) games do exist on the CPC and are quite good games in their own right but they are very hard, with outlandish parsers. I think the company that made them was called Software International and that Adventure International was just their adventure label.
Tony Hutchison
Saltney

Thanks Tony!

MAD MUSHROOM FARMER

Greetings, oh most demonic saviour of the adventure breed, I wish to acquire some information:
1) What happened to the Bards Tale Club?
2) Which adventure creators, apart from *GAC*, can be used without any knowledge of programming – which would you recommend?
3) In *AA76* in the *GAC* compo it says that Adam P gets transported into your lair... but in *AA77* it has changed to Rod Lawton – who is it?
4) Would it be possible to give a rough idea of how much the *GAC* is capable of? I don't want to plan out an adventure with 300 locations if *GAC* can only handle an average of 50.
5) Is the *GAC* booklet still available?

May Gadungrick, God of the sacred magical fungi, bless your already mighty forehead...
Fungus Metaljest
(Chief Jester, Mage, Warrior and Adventurer of the Mushroom Plateau)

1) Bards Tale finished in *AA71* because nearly all that could be said was said, short of printing a full solution!
2) All require some degree of programming but if you can program in *GAC* then it shouldn't be too difficult to pick up either *ADLAN* or *GAC*. For the addresses of where to get these packages see last month's letters.
3) Rod or Adam – it's up to you!
4) In theory *GAC* can have up to 9999 locations but memory constraints stops this. It all depends on how much memory you use on descriptions, pictures and puzzles but to be honest *GAC* isn't up to much – you're best bet is to experiment yourself as to its limitations.
5) Yes, there are lots left. You can order a copy by sending £2.99 (no cash, please – cheques/postal orders only) to: Amstrad Action GAC Booklet Offer, Future Publishing, Somerton, Somerset TA11 7BR.

GAC programming clinic

If you have any questions about the use of *GAC*, specific *GAC*-related problems or queries or hints and tips of your own then jot them down and send them to: Balg's GAC Programming Clinic, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

Q: How do you have two pictures of, say, a tunnel – one if the torch is lit and the other if it isn't?
John Reilly, Barnstaple

A: Ummm... that's a toughie. There are two ways to do this: the first is to have two identical rooms with different pictures (but this is very greedy on memory). The second is to use control codes as shown in *AA58*.

Control codes can be incorporated into a game's room or message descriptions. These control codes are listed in chapter 9 of the manual. Letter them starting at 1="A", to 26="Z" then 27="[", 28="\", 29="]", 30="^", 31="0" to make reference easier. For example:

CTRL +	Variable	Note	BASIC equivalent
D	n	Change screen mode n=0-2 (GAC still uses 40 columns though)	MODE n
G		Bell (Beep!)	PRINT CHR$(7)
H		Move cursor left 1 character	PRINT CHR$(8)
I		Move cursor right 1 character	PRINT CHR$(9)
J		Move cursor down 1 line	PRINT CHR$(10)
K		Move cursor up 1 line	PRINT CHR$(11)
L			CLS
N	n	n=Paper number 0-2	PAPER n
O	n	n=Pen number 0-3	PEN n
X		Inverse video on/off	
\	n xx	n=Pen number x=letter representing a colour (appendix B of GAC manual, two different X%s mean a flashing colour.)	INK n,x,x
]	xx	Set border colour	BORDER X,X

For example, 'CTRL-L, space, rest of message...' will clear the window (code 12) and print a message.

You can also change colours with these, although I would suggest setting up a sequence to reset colours to normal in case of error – if this happens you won't be able to read the menu or anything else! You can do this by setting up a 'dummy' room with the following codes:

```
\0AA   INK 0,1
\AXX   INK 1,24
N0     PAPER 0
OA     PEN 1
]AA    BORDER 1
```

• Note: These are all typed with 'CTRL' pressed, except the zero which is typed on its own. The codes should be continuous; I have separated them to show what each section does.

You can now experiment with the codes. For example, at the beginning of a room description, you can change colours, make a beep, etc. If the colours go wrong, press ESC until the menu screen, press 'B' for beginning room, delete old start room, and type the number of the dummy room, 'ENTER', 'ENTER' to start game, and the colours will return to normal. Thus you can change the colour of the picture of the tunnel – have very dark pictures for no light and normal pictures for a lit room.

Q: I want to be able to have a built-in map using an unused room to hold the picture, pressing M to show the map and another key to return to the adventure. Can this be done?
John Reilly
Barnstaple

A: Yes but it would be very wasteful on memory and complicated. You'd have to have a different picture for each stage of the map, with the M key using the GOTO command to send the player to that room and a RETURN command which would use the GOTO key to send you back to the location you came from. You could save on memory by merging pictures of the maps together but it would still use up a lot of memory.

Q: How do you arrange to have characters which wait for you to give them something or to do something for them.
Brendan "Legolas" McGoldrick
Strabane

A: Just write a routine for it! For example put in the low priority conditions the line 'GIVE MONEY', check to see if the character is present (by setting it up as an object and using the HERE command) and then print a message (e.g. 'Thanking you for the money, the bus conductor runs away').

Q: In the text in the February tutorial, after message 3 (which is OK) local room condition, room 2 ok then asks "Which line number?", nothing seems to answer this and if a number given at random and "IF (VERB & SET? 3) GOTO 1, WAIT END" is typed in, the machine answers "Don't understand" and reprints it! Also shouldn't this condition be low priority?
D.S.Anthes
Dorset

A: You should start at line number 1. The machine is responding "Don't understand" because the line you are typing in is not syntactically correct – it should be "IF (VERB 4 AND SET? 3) GOTO 1 WAIT END". This is a local condition as it only applies to one room – you don't want verb 4 to always send you to room 1 so you make sure it only applies in room 2.

GAC COMPETITION ENTRY FORMAT

A lot of people have written asking for what they should send with the GAC games they write for the competition. So here they are – the full compo rules!

1. The game must be *GACed* (It is a *GAC* competition after all!)
2. It must be one part only (the covertape won't have room for a multi-part game, it would take up too much space)
3. You can send your game on a tape or disk (although I'd prefer the game on disk), but if you want your game back you must include a stamped self addressed envelope.
4. You must send a solution and map with your entry (I can't be expected to play hundreds of *GAC* games without any help!).
5. It would help if you sent any relevant instructions.
6. It would also help if you wrote why you feel your game is good – outline any clever puzzles, amusing responses or strong points.
7. Don't forget you can also mark your game as PD if you'd like Debby Howard of Adventure PD to stock the game if you're not the lucky winner.
8. Remember don't send your games yet – there's no rush!

The Wacci Page

Head Wacci dude CLIVE BELLABY brings us another round up of news, views and technical tit-bits from the twilight world of SERIOUS computing on the CPC...

DOES THE GREAT ROMDOS SAGA END HERE?

As promised last time, here's the source code listing for our *Art Studio* poke. It was written using *Protext* and *MAXAM 1.5* but should be OK for most assemblers. This code links directly to last month's program – so you'll need to reread *AA82* (or send off for a back issue if you don't have it) to know what's happening. (And why!)

```
;Art Studio Loader for ROMDOS
;(c) Jess Harpur 1992

romdos          equ 1       ;Romboard slot number occupied
                            ;by Romdos
copykey         equ &E0     ;Value returned when COPY key
                            ;pressed

KM_READ_CHAR    equ &BB09   ;The Firmware Calls....
KM_WAIT_KEY     equ &BB18
KM_READ_KEY     equ &BB1B
TXT_OUTPUT      equ &BB5A
CAS_IN_OPEN     equ &BC77
CAS_IN_DIRECT   equ &BC83
CAS_IN_CLOSE    equ &BC7A
SOUND_RESET     equ &BCA7
KL_INIT_BACK    equ &BCCE
MC_START_PROGRAM equ &BD16
MC_WAIT_FLYBACK equ &BD19

OLDCOM          equ &BF08   ;A safe place to store
                            ;km_read_key
TESTKEY         equ &BF0B   ;A safe place to put the new key
                            reading code

org &9000                   ;A safe place to put the loader
                            ;code

ld hl,filenam               ;Point HL to start of filename
ld b,10                     ;Put length of filename in B
ld de,&800                  ;Point DE to start of file
                            ;buffer
call CAS_IN_OPEN            ;Open the file
jp nc,0000                  ;Reset computer if there's an
                            ;error
ld hl,&800                  ;Put load address in HL
call CAS_IN_DIRECT          ;Load the file
jp nc,0000                  ;Reset computer if there's an
                            ;error
call CAS_IN_CLOSE           ;Close the file
;
ld hl,(&BE7D)               ;Get address of disc rom
                            ;workspace into HL
ld a,(hl)                   ;Get current drive (0=A,1=B)
                            ;into A
ld (drive),a                ;and poke it into code below
;
ld hl,patch                 ;Point HL to start of poke
ld c,&FF                    ;Put rom selection in C
jp MC_START_PROGRAM         ;Jump to firmware routine
                            ;(Resets machine and runs
                            program)
;
filenam         db "STUDIO.BIN"

;
patch           ld hl,&ABFF ;Define limits of free memory;
                            ;highest in HL
ld de,&40                   ;and lowest in DE
ld c,7                      ;Put Disc Rom's select number in
                            ;C for
call KL_INIT_BACK           ;initialise Disc Rom
;
ld c,romdos                 ;Put Romdos's select number in C
                            ;for
call KL_INIT_BACK           ;initialise Romdos
;
db &3E                      ;(Hex &3E,? = ld a,?)
drive           ds 1        ;Put current drive in A (stored
                            ;here previously)
ld hl,(&BE7D)               ;Get address of disc rom
                            ;workspace into HL
ld (hl),a                   ;Restore current drive setting
;
ld hl,KM_READ_KEY           ;Point HL to firmware jump block
                            ;entry
push hl                     ;Save it on the stack
ld de,OLDCOM                ;Point DE to our storage
                            ;location
ld bc,3                     ;Number of bytes to move into BC
ldir                        ;Move them
;
pop hl                      ;Restore HL as pointer to jump
                            ;block entry
ld (hl),&c3                 ;Put a JUMP instruction into
                            ;jump block
;
inc hl                      ;DE points to exec. address
                            ;(testkey) of new
ld (hl),e                   ;key reading code after the LDIR
                            ;instruction
inc hl                      ;so poke the address into the
                            ;two bytes after
ld (hl),d                   ;the JUMP instruction
;
ld hl,zbreak                ;Point HL to storage location of
                            ;new code
ld bc,ptchend-ptchcod       ;Put length of new code into BC
;(DE still points to execution address)
ldir                        ;Move key reading patch into
                            ;correct position
;
jp &0986                    ;Jump to STUDIO.BIN avoiding
                            ;calls to &BD16 and
;&BCCE
;
zbreak          equ $       ;Location marker for use by
                            ;Maxam assembler
; |-
org             TESTKEY,zbreak ;Instructs Maxam to produce
                            ;object code which will execute
                            ;correctly at testkey, but to
                            ;store it from zbreak onwards

ptchcod         call OLDCOM ;Call KM_READ_KEY
ret nc                      ;Return if no key available
;
;The keypress is held in A register
cp copykey                  ;so check if it is the COPY key
jr nz,exit                  ;Jump to exit if it is not
;
push bc                     ;Save contents of these
                            ;registers
push de                     ;which the call to sound_reset
push hl                     ;will corrupt
;
ld a,7                      ;Put ASCII code into A
call TXT_OUTPUT             ;Print contents of A register -
7 sounds beep
;
flush           call KM_READ_CHAR   ;Get a key from the
                            ;key buffer
jr c,flush                  ;Go back and get another if
                            ;there was one available
;
ld b,25                     ;Make B a counter
delay           call MC_WAIT_FLYBACK ;(Flyback occurs 50
                            ;times a second)
djnz delay                  ;Repeat until B=zero
;Results in a delay of approx. half a second
;
call SOUND_RESET            ;Stops all sound output
;
retry           call KM_WAIT_KEY    ;Waits for a keypress!
                            ;Returns key in A reg.
;
sub "0"                     ;Subtract value of "0" from key
in A register
jr c,retry                  ;If key in A was less than "0"
                            ;then try again
;
cp 10                       ;Check if key in A was greater
                            ;than "9"
jr nc,retry                 ;Try again if it was
;
ld hl,(&be7d)               ;Get address of disc rom
                            ;workspace into HL
inc hl                      ;Point HL to location of current
                            ;User Number
ld (hl),a                   ;Poke the selected User Number
;
pop hl                      ;Restore registers....
pop de
pop bc
;
ld a,13                     ;Put ASCII code for Carriage
                            ;Return in A
;
exit            scf         ;Set carry flag to indicate key
                            ;available
ret                         ;Return to Art Studio

ptchend         equ $       ;Location marker for use by
                            ;Maxam assembler
```

By Jess Harpur, Campursoft & WACC

WACCI - The Club

WACCI is a CPC user group with over 400 club members. It produces a 32 page, 27000 word monthly magazine covering diverse topics like programming reviews of software, members letters and comms. WACCI costs £1.50 per issue: for a sample copy send a 34p stamp and your name and address to WACCI, 12 Trafalger Terrace, Long Eaton, Nottingham, NG10 1GP.

- Club membership continues to steadily grow as more and more users are turned on by the more serious side of computing. The public domain library also continues to expand and it now has over 40 discs full of software. (The biggest growth area has been *MicroDesign* pictures and clip art - we now have 11 disks full of pictures.)

News & new products

For many months we have mourned the almost daily (it seemed) loss of quality Amstrad CPC-orientated companies as they've packed up their bags and moved into the more lucrative Amiga, Atari and PC markets.

This trend seems to have ended as new companies have sprung up to fill the gaps left in the market place. Even as we speak, news is filtering through of many new products.

There will be a brand new version of *MicroDesign* out around Christmas, for a start. It is a complete re-write of the original and will have full page processing facilities as well a full art package. Estimated price around £40.

Campursoft is also (it would appear) arranging for the manufacture of a generic MP2 TV modulator and a brand new RGB to SCART conversion system!

Also on its way, a 24 pin printer driver for the *MicroDesign* package, written and supplied by Goldmark systems.

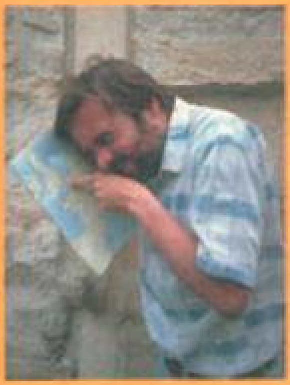
Also coming - a replacement RS232serial interface from Siren software (which will be bundled with a Modem and software later this year). Look out for a review in Technical Forum soon.

This list of new product is endless - except, of course, I've ended it, 'cos we're out of room and time...

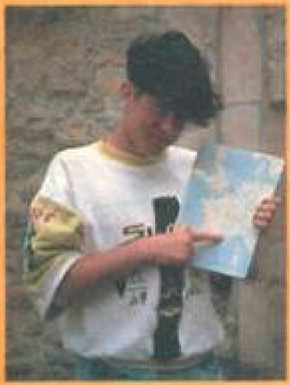
ADVERTISERS INDEX

Meet the Team

Another French issue, huh? The ideal time to ask the *Amstrad Action* posse what their favourite place in France is, we reckon. Here come their replies...



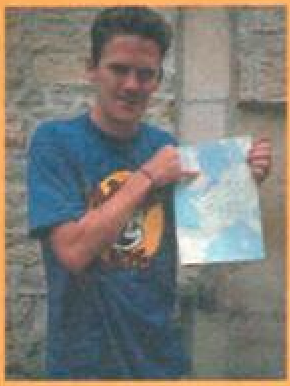
ROD LAWTON
I like that spot 60 yards from the zebra crossing, near **Boulogne** docks, where I spotted a really nice plastic bag. It was gone when I came back though, so I don't like France any more.



ADAM PETERS
My favourite French place is the town of **Marseille**. I once fell asleep on a coach and woke up there. That's where I bought this excellent sweatshirt. It's really nice, isn't it? (*No – ed.*)



MARYANNE BOOTH
My top place in France is **Segrier** in the Ardesch region. I used to live there when I was little. It's really nice. There's a river running through it, and lots of lovely French squirrels...



ADAM WARING
My favourite place in France is the beautiful and picturesque seaport of **Kingston-upon-Hull**. (*Er, Hull's not in France Adam – ed.*) It isn't? Oh. All right, Grimsby then. But I prefer Hull.



ALISON MORTON
Paris is my favourite Gallic town. I admire its cultural and artistic heritage and beautiful Napoleonic architecture. Most of all, though, I like it because of the onion soup you can get there.

on the GRAPEVINE

In a change to the advertised program, ADAM PETERS presents news of changes in *AA's* games coverage, the dates of a couple of computer showsdetails of where you can buy cartridge games, and a chance to win some safe American Football stuff. Nyeeeow...

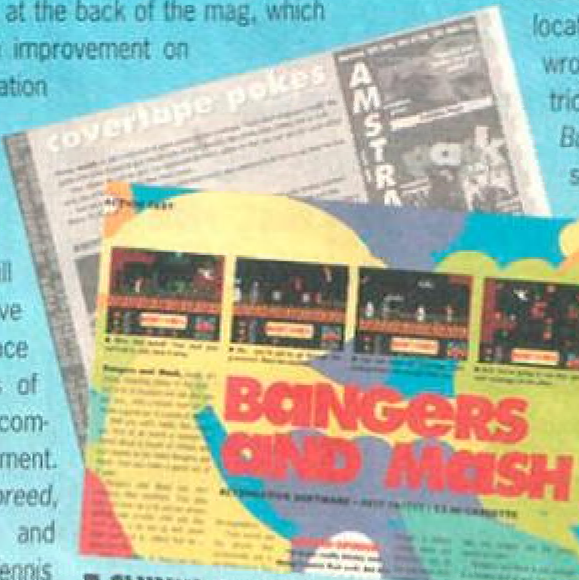
CH–CH–CHANGES

Next month sees a big shuffle of our games content. *Action Test* goes to the back of the magazine, where it links up with *Cheat Mode* and an extended *Action Replay*. This will create a '16-page game section' at the back of the mag, which we hope will be an improvement on the current situation where related sections are often several pages apart.

Action Replay will be extended to give us even more space to cover the mass of budget re-releases coming out at the moment. Games like *Nightbreed*, *Cyberball* and *International 3D Tennis* get a detailed going over next month. There's a few more changes to the section as well, but we can't reveal these at this stage...

Cheat Mode pitches in at four pages, with a new requests section and much more. *Action Test* itself gets brighter and briller than ever before. *Grapevine* also undergoes some changes, and look out for our new *Action Zone* section.

The new 'games section' and Action Zone spread both start in next month's issue.



■ ***CLUNK! Action Replay rockets in size. CLINK! Cheat Mode gets intimate with the games reviews. CLONK! Er...***

CARTRIDGES AHOY!

A few months ago we asked you to write in with lists of any cartridge games you were trying to get hold of and said we'd do our best to locate a source. Well, 117 of you wrote in and every single cartridge got a mention (apart from *Burnin' Rubber* which everyone should already have). The most popular was *Robocop 2* with 20 votes, the least popular were *No Exit* and *Tintin on the Moon* with one vote apiece.

We put out some feelers and managed to come up with a reliable source that holds stocks of around half the cartridges releases. The address you'll want is: Denise Williams, The User Group, PO Box 10, Roper Street, Pallion Industrial Estate, Sunderland SR4 6SN.

The games they stock are as follows: *Barbarian 2*, *Batman – The Movie*, *Crazy Cars 2*, *Epyx World of Sports*, *Fire & Forget 2*, *Mystical*, *No Exit*, *Operation Thunderbolt*, *Pro Tennis Tour*, *Robocop 2*, *Switchblade* and *Tintin on the Moon*. Of these, *Robocop 2*, *Switchblade* and *Pro Tennis Tour* are the best. *No Exit* and *Mystical* are worth a mention because we didn't think they were avail-

The Word Is Out

Computer shows mean wall-to-wall bargains, loads of games to try out, and much more. They're fab, and this autumn there's two biggies on the way. There's the, Gamesmaster Live event at the NEC in Birmingham from December 4th-6th, organised by EMAP (publishers of *CVG*) in association with the *Gamesmaster* TV show.

The Birmingham event will be focusing on Sega and Nintendo machines, but this year's other big show will be covering all formats, including the 8-bits.

The Future Entertainment Show will be taking place at the Earls Court Exhibition Centre from November 5th-8th, to follow on from last year's World of Commodore show. The event is being organised by Future Publishing, the people behind *Amstrad Action*, and Adam and Rod will be in attendance to chat to you and receive any gifts you wish to bestow. More info nearer the time...

Here's an interesting little titbit for you, punters: you know that *Viz* magazine, right? You know that it's spawned a whole bunch of other magazines (*Ut*, *Zit*, *Acne* etc)? Guess what – one of those magazines, *Gas*, is actually published by Alternative Software, the 8-bit budget house behind such cutesie titles as *Postman Pat 3*. Not a lot of people know that.

Interesting fact number two: software houses seem to be giving up on doing Amstrad versions of games, claiming that there is no market left. Yet compare the sales of Amstrad software with



You want to know where to get hold of games for the GX4000? Well we know but we're not telling. Oh all right then, see *Cartridges Ahoy* for details.

able on cart in the UK.

These games have a recommended retail price of £25.52, but 'The User Group' are offering them for only £19.95 each, including VAT and postage. Stocks are limited though, so it's best to ring Denise on 091-510 8787 before sending off any money.

If anyone else knows a reliable source for cartridge games, drop us a line here at AA and we'll pass the info on.

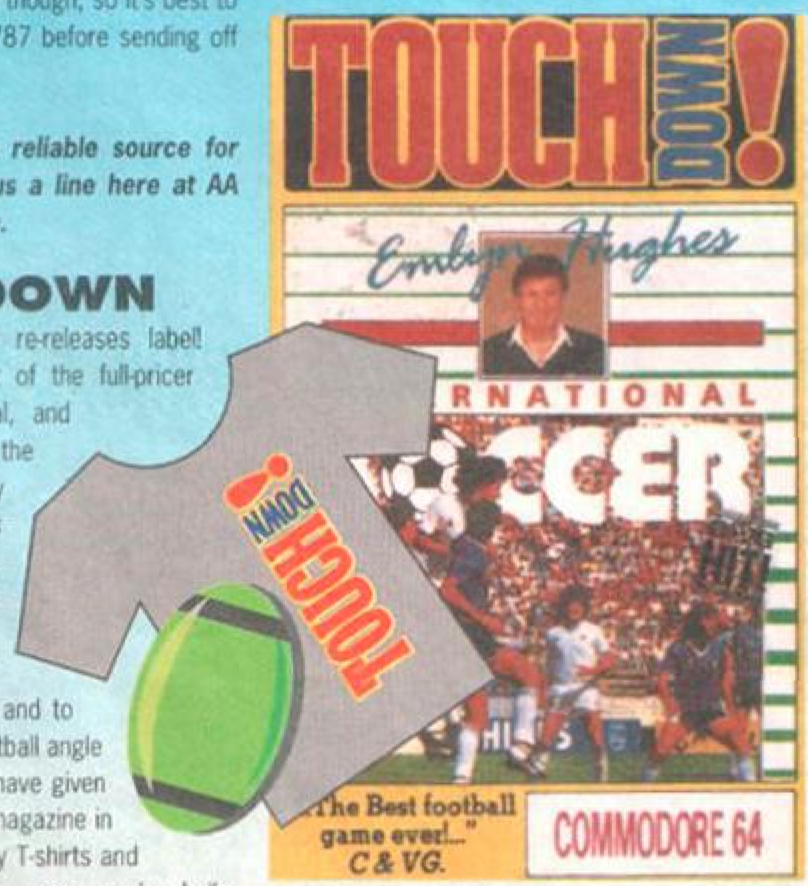
TOUCHDOWN

Gadzooks, a new budget re-releases label! Touchdown is an offshoot of the full-pricer Entertainments International, and they make their debut on the CPC with the absolutely scorching *Emlyn Hughes International Soccer* (AA's second favourite footie game of all time).

To celebrate their appearance on the scene, and to tie in with the American Football angle of their name, Touchdown have given us (and about every other magazine in the world) 15 excellent grey T-shirts and 15 mega-fab squashy toy green rugby balls. These really are dead funky and tasteful and we want to keep them, but they won't let us. "Do a competition for your readers and offer them as prizes," they say. Gah!

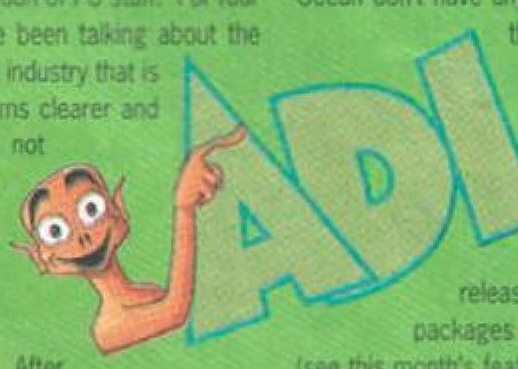
Okay, here's the question: You know how American football teams have strange names (Ohio Elephants, Seattle Laser-Cannons etc). Well, if you were to set up a US football team in your home town/area, what would you call it? And why? Write to: *Touchdown Compo, Amstrad Action, 29 Monmouth Street, Bath, Avon BA1 2DL*. The senders of the 15 (or probably 14, 'cos we want to keep one of the balls for ourselves) most amusing, clever or libellous entries will win a T-shirt and one of them ace little squashy balls. Closing date: August 31st.

Out now: Emlyn Hughes International Soccer (Touchdown), priced £3.99 cassette.



T-shirts and balls to be won, ace footie games to be bought. You know the score.

the sales of PC software, and what do you see? You see that Amstrad games are out-selling IBM-compatible games by a factor of five to two. And this with so little CPC stuff available, and such heavy promotion of PC stuff. For four years the softies have been talking about the boom in the PC leisure industry that is on the way, yet it seems clearer and clearer that it's just not going to happen. Meanwhile, they've been busy ditching popular machines like the CPC. Berks.



Bad news ahoy! After months of procrastinating, and lots of umming and ahhing, we've learnt that Ocean aren't going to produce either *Space Gun* or *Robocop 3* on the Ammy after all. The games were due to be appearing on cartridge, but it seems to have been decided that this was unfeasible. The (silly) idea of producing *Robocop 3* on 6128+ only disk has also been scrapped, and now neither game is going to appear in any form. Gah! Ocean don't have any other CPC releases planned at the moment.

Europress, the publishers of the *Fun School* educational series, are releasing a new educational series, *Adi*, on the 16-bits this summer. There's no word on a CPC release yet, but we saw lots of *Adi* packages available for the CPC in France (see this month's feature on Boulogne), so there must be an outside chance.

And that's about it for this cycle of the moon (or whatever a month's supposed to be). More facts and frivolity next month readers, in the only video games gossip column in Britain that isn't afraid to end in mid-

The Charts

This chart is compiled by Gallup Ltd. (© European Leisure Software Publishers' Association Ltd. 1992)

FULL-PRICE

1. **WWF Wrestlemania** Ocean
2. **Dizzy's Excellent Adventures** C'Masters
3. **Cartoon Collection** CodeMasters
4. **Dizzy Collection** CodeMasters
5. **Lemmings** Psygnosis
6. **Mini Office 2** Europress Software
7. **Big Box** Beau Jolly
8. **Space Crusade** Gremlin Graphics
9. **Terminator 2** Ocean
10. **The Simpsons** Ocean

BUDGET

1. **Bubble Bobble** Hit Squad
2. **New Zealand Story** Hit Squad
3. **Magic Land Dizzy** CodeMasters
4. **Robocop** Hit Squad
5. **1st Division Manager** C'Masters
6. **Quattro Skills** CodeMasters
7. **Panic Dizzy** CodeMasters
8. **Double Dragon 2** Tronix
9. **The Match** D & H Games
10. **Dizzy down the Rapids** CodeMasters

making a game of it

PART FOUR

code & chips

Last month we featured part three of our How a Game is Made series. This month, in a controversial move, we're going to feature part four. As ever, it's ADAM PETERS tapping the words in...

Computer games programmers fall roughly into two categories. There's the shy and withdrawn sci-fi geeks who go for weeks without ever speaking to anyone, and have 'computer programmer' stamped on their foreheads. Then there's the totally ordinary types whose profession you wouldn't be able to guess, even if they passed you in the street waving a copy of *PDS* (*Programmer's Development System*) in the air.

Jon Cartwright is definitely one of the latter type. A jolly, laughy, cheery young lad who the rest of the Big Red posse get to make phone calls for them ('cos he's good on the phone, like). Like most programmers, Jon uses *PDS* on the PC to write the code. Once assembled on the PC, the code goes 'down the line' (via an RS232 comms interface) into the CPC.

The games are usually written on the Spectrum first though. Both the PC and the Speccy are permanently switched on, with Jon hopping from one to the other to test out if the animations and so forth are working.

An average Big Red game for the Amstrad will consist of around 96K of code, including extra frames (eg loading screens). The vast majority of this is taken up with graphics, with only about 2K for the 'map' (which specifies what sprite goes where) and another 2K for the sound (title tune and in-game effects). The actual program (the bit which pulls everything else together) is usually only a few K big.

Spot the Difference



The first level of *Seymour's Wild West*, as we've said a dozen or so times, is full of in-jokes that people not on the Codies pay-roll won't understand. There are a few sprites of CodeMasters staff lurking around too, including one of our pal Rich Eddy. See above, but which is the sprite and which is the photograph. Tricky, huh?

Three months have been set aside for programming Seymour's Wild West, though Jon hopes to finish it a lot sooner. "The bare bones of it should be finished in quite a bit less. We then have to spend time making the map look pretty, getting the scrolling smooth and sending it away to be playtested."

Work starts with 'grabbing' in the sprites (frames for animated characters, backgrounds etc) that Pete has designed over the past couple of months. Map editing is the next stage, where a rough approximation of the map is put together. Jon needs to make sure that Seymour can move from screen to screen unhindered. Initially most screens will just consist of the floor and a couple of objects in the room. More detail is added as everything else (the animation, puzzles etc) comes together.

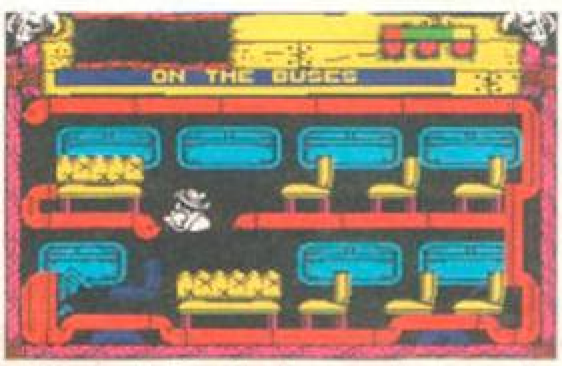
Once the game is programmed on the Spectrum, converting it to the Amstrad only takes about a week (!). The two computers use the same (Z80) chip and there is a special program to convert the graphics. Extra colours are added, and a little jigging around is necessary to suit the CPC's screen format, but it really is that quick and easy.

As we've mentioned earlier in the series, *Wild West* is to be broken up into separate sections (or 'Acts'), each a separate game in itself. There will be five acts, though only the first two have been fully planned out at this stage. Both consist of eleven rooms, with some extra graphic bits in-between. Another act, the so-called 'train level', is only going to be six screens in size.

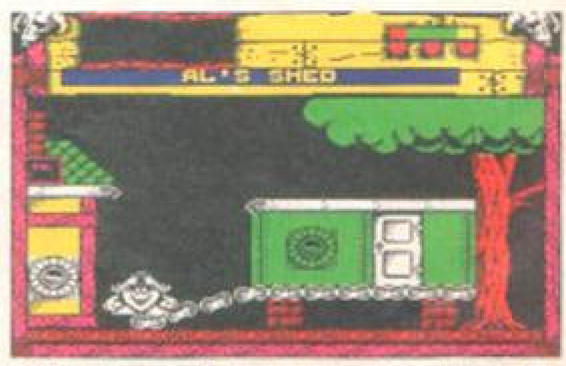
A problem that Pete was mulling over when this series began has now been solved. The Seymour sprite has been re-sized, and made wider so the cowboy hat can be fitted on. There was talk of pos-



■ **Hurrah! It's the Big Red Software big red bus. But who's that asleep under it?**



■ **It's the inside of a bus, so where are the old ladies and screaming kids?**



■ **Al's shed. Who's Al, then? Er, he's the CodeMasters gardener actually.**

softie spot

THE HI-TEC GROOVE

We've thrown Adam on a train and sent him to Sheffield...

I'm in Sheffield. I don't know why I'm here. Rod and Ange just bundled me on a train to Sheffield, without explaining what they wanted me to do there. They also seem to have tied my hands behind my back and gagged me. Strange people.

Who can I get to untie me? I know, I'll drop in on Hi-Tec Software, they're based round these parts. They are, if you remember, one of Britain's leading budget houses. Most of their games are based round cartoon characters, licensed from Hanna Barbera.

As well as individual, original titles at £3.99 a throw, they are also responsible for the best-selling *Hanna Barbera Cartoon Collection* compilation pack.

They've published a fair few non-licensed titles too, though, including this month's stonking centre pager *Turbo the Tortoise*. As well as standard £3.99 tape releases, they have experimented with a mid-range price of £6.99 for a few releases (the brill *Potsworth* and the dire *Jetsons*). The company has recently encountered a few financial difficulties, which



■ **Pete Ranson proudly shows off a draft sketch for the *Seymour's Wild West* inlay. "We want camp stoves dangling from the sides of the wagon, loads of arrows and all that."**

sibly having a separate sprite for the hat, but that would have slowed things down a lot. Having a bigger single sprite seemed the best solution.

But what about problems that are still to come? Jon reckons that the hardest thing is going to be trimming down the animation. "There's 255 frames of animation at the moment, which is a hell of a lot."

The problem-solving continues, but so too does the innovation. As well as speaking, Seymour is also going to start thinking. Thought bubbles will appear above his head. "He can start being sarcastic," enthuses Pete, "and the other characters won't be able to hear what he says."

There are no time limits in this game, in the way there were with *Seymour Hollywood*, but something complicated involving a town hall clock is being planned. Progress is marked by the passage of a dot (representing Seymour) across a map of the USA at the top of the screen.

Some evil person called El Bandito will be trailing Seymour, causing him untold unpleasantness along the way. The showdown with El will provide the game's grand finale.

There's no *How A Game Is Made* next month, but we rejoin the posse in two months to find out how the programming is going and how the artwork on the inlay cards is put together. You'd be a soft-boiled egg to miss it.

We'll leave the last words this month, though, to Pete Ranson and Jon Cartwright. Tell us a secret, each of you. Pete first: "I buy colouring books from Sainsbury's to relax. I get a new one every lunch time." Hmm, not much of a secret really. Can you do better than that, Jon?

"Yeah. I can't play these Seymour/Dizzy games. I'm not clever enough. I tried to play Seymour goes to Hollywood but gave up." Crikey, and he's the programmer! "You're not going to print that though, are you?" Er... no. Of course not. Us? We'd never do anything like that. No way. Er...



■ **The Codies office, personned by receptionist dude Clare. Loads of dialogue ahoy!**



■ **And here's the bloke wot's programming the whole shabang, one Jon Cartwright.**



it is currently endeavouring to sort out.

I was going to ask them about this, as well as about any future releases they've got planned. Unfortunately I didn't get the chance. They dumped me on the first train back to Bath, without even untying me or removing the gag. What a wacky bunch.

■ **A small selection from the Hi-Tec stable. *Scooby Doo & Scrappy Doo* rated as the one of the best games of 1991 (at any price).**

Red Guide to Producing a Game

So what are the stages in which a game is programmed and put on sale? We locked the Big Red Three and Codies PR dude Richard Eddy in a cupboard until they told us.



■ **Fred Williams, Pete Ranson and Jon Cartwright: the Big Red posse pose.**

1) GAME DESIGN Have an idea for a game down at the pub. Have a few more ideas about what should be in it.

2) USE OLD MAP Drop the new sprite (Seymour with hat) into an old game (*Seymour goes to Hollywood*) and let it walk around a bit.

3) NEW GRAPHICS Design some new graphics, using previous graphics (*Seymour Hollywood*) as a base.

4) WRITE SOME DIALOGUE Knock up lots of speech for the characters to interact with. Pete: "We're going to have to trim down the speech. Clare the receptionist just yaks and yaks, you can't shut her up." (Er, the sprite that is.)

5) NEW PUZZLES Chuck in all those tricky little puzzles to tax the minds of the punters. Pete: "We put in all these puzzles we think are really difficult, and still people manage to solve them. It never ceases to amaze us."

6) ADD THE ANIMATIONS Some animations will be the same as earlier incarnations (*Seymour Hollywood* again) but there will be some new ones too. The game genie hovering, for instance.

7) GET IT PLAYTESTED Send it back and forth to the playtesters, making changes where necessary to iron out all those little bugs and get the difficulty level spot on.

8) DESIGN A COVER Creative Director Shân Savage sorts out a snazzy illustration for the tape inlay.

9) SELL IT Distribute loads of copies to shops around the country, cross your fingers and hope everyone likes it and it sells like hot bananas.

10) GO TO THE PUB Try and think of an idea for the next game while you're down there.

BACK ISSUES



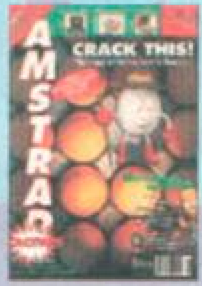
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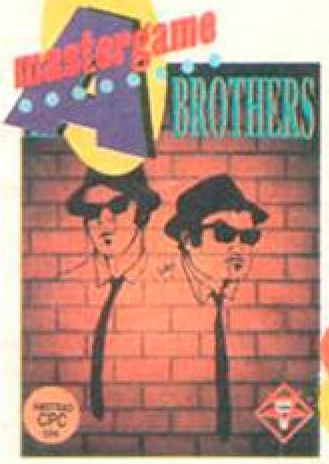
THE ADDAMS FAMILY

Ocean • 128K, disk-only

The huge, super-tough game that scored a Mastergame in *AA82* is now available to *AA* readers at a special bargain price. Can you rescue all your relatives from the depths of the

save £3

Description	Price	Order No
Addams Family Disk	**£12.99**	**AA475D**



BLUES BROTHERS

Titus/Palace

Not, strictly, a conversion of the film but a platform explore and beat-em-up featuring the two lovable characters, Jake and Elwood. Five levels, and lots to keep you going

save up to £3

Description	Price	Order No
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MINI OFFICE II

Database Software

Word processor, database, spreadsheet, label printer, graphics and communications – a fabulous all-in-one pack at an amazing price!

Word processor Uses menus and/or embedded commands for most functions. Lets you import text from the database module.

save up to £4

Database Five different field types available. Handles arithmetical functions, record sorting and more

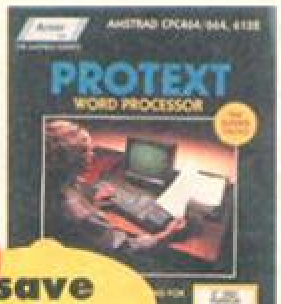
Spreadsheet You can copy formulae or absolute values from cell to cell, print out all or part of your spreadsheet and recalculate automatically or manually.

Label printer Lets you design labels and 'read' data from database files.

Graphics Produces pie, bar or line charts. Can accept data directly from spreadsheet. Dumps graphs directly to printer.

Comms Range of comms protocols supported, plus files saved directly to memory or disk.

Description	Price	Order No
Mini Office II Cass	**£13.99**	**AA670AC**
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PROTEXT

Arnor

Arguably the best word processor you can buy for your Amstrad (it's the one used by the *AA* editorial team). Very fast, and allows comprehensive file-handling from within program. Can be 'expanded' with *Prospell, Promerge* and *Protype* packages, available from Arnor. Works on 464 *and* 6128 • **DISK ONLY.**

save £10

Description	Price	Order No
Protext Disk	**£19.95**	**AA674D**



FUN SCHOOL 4

Database Software

There are six games in each package, and three packages: one for the under 5s, one for the 5-7s and one for the over 7s.

save up to £5

Under 5s (Teddy Bear) can learn addition, drawing, painting, picture-matching, karaoke (!) and reading.

5-7s (Frog) learn how to sort books, be a shopkeeper, do sums, arrange letters and numbers in sequence, match words and type.

Over 7s (Spy) can learn arithmetic, answer questions, convert currency, understand timetables and learn geography and dates

Description	Price	Order No	Description	Price	Order No
T. Bear Cass	**£9.99**	**AA650AC**	**Frog Disk**	**£11.99**	**AA651AD**
T. Bear5 Disk	**£11.99**	**AA650AD**	**Spy Cass**	**£9.99**	**AA652AC**
Frog Cass	**£9.99**	**AA651AC**	**Spy Disk**	**£11.99**	**AA652AD**

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AA BINDER

Keep your valued Amstrad Action magazine collection together in this bright red binder.

Description	Price	Order No
One binder	**£5.99**	**AA417R**
Two binders	**£11.00**	**AA4172R**

type-ins

Welcome to another batch of readers' programs plus JERRY GLENWRIGHT'S ongoing BASIC tutorial – everything you need to get the most out of your machine's inbuilt BASIC! If you've got any programs *you* think are good enough for publication, send them to: Type-Ins, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW... you could win £20!

MFFILE

WINNER! £20

The Multiface is one of the gamer's best tools for getting those otherwise unattainable high scores, right? Problem is, a month or two after buying a Multiface, and you've got more scraps of paper with obscure pokes on them than er, someone with lots of scraps of paper. Try digging out your favourite poke from that lot!

But now there's David Madden's MFFile poke database. Realising that the best way to store pokes was to assign the task to his CPC, David, of Farnborough, Hants, decided to write a dedicated database and MFFile is the result.

Consisting of just 4K, the program enables you to store up to 250 pokes together with the name of the game they apply to, address and effect – it's wonderful!

A must for dedicated cheats everywhere.

```
{LtAp} 10·'Multiface·Cat
{FpAu} 20·'For·Amstrad·Action·&·PD
{MvAw} 30·'By·David·Madden·on·464+·March·1992
{PxAr} 40·'All·REM's·must·be·typed·in
{NlAq} 50·ON·ERROR·GOTO·1160
{PnAw} 60·BORDER·3:PAPER·0:INK·0,3:INK·1,24
{MxBl} 70·DIM·name$(250):DIM·pok$(250):DIM·efc$
       (250)
{MmAx} 80·MODE·1:PEN·2:PRINT·STRING$(40,251)
{DqCk} 90·PEN·1:LOCATE·2,3:PRINT"WELCOME·TO·MUL
       TIFACE·CATALOGUE·(v1,1)."
{KtBj} 100·PEN·2:LOCATE·1,5:PRINT·STRING$(40,25
       0)
{HtBm} 110·PEN·1:PLOT·135,80:DRAW·135,300:DRAW·
       510,300
{GkAx} 120·DRAW·510,80:DRAW·135,80
{MoAt} 130·PLOT·135,260:DRAW·510,260
{KxBk} 140·PEN·2:LOCATE·13,8:PRINT"A-LA-
       CARTE·MENU"
{NmCl} 150·LOCATE·11,11:PRINT"1,·INFORMATION.":
       LOCATE·11,13:PRINT"2,·ENTER·DATA."
{ErBx} 160·LOCATE·11,15:PRINT"3,·LOAD·FILE":LOC
       ATE·11,17:PRINT"4,·SEARCH·A·FILE."
{CvBl} 170·LOCATE·11,19:PRINT"5,·END·PROGRAM."
{NwBs} 180·LOCATE·6,22:PRINT"<<·PLEASE·ENTER·YO
       UR·CHOICE·>>"
{CiBi} 190·a$=INKEY$:IF·a$=""·THEN·190
{MwBm} 200·a=VAL(a$):IF·a=0·OR·a>6·THEN·200·ELS
       E·210
{CoBk} 210·ON·a·GOSUB·220,320,670,840,1020
{ErAp} 220·REM·Information
{AmAx} 230·CLS:PEN·2:PRINT·STRING$(40,251)
{HsBr} 240·PEN·1:LOCATE·12,3:PRINT"<<·INFORMATI
       ON·>>"
{KtBj} 250·PEN·2:LOCATE·1,5:PRINT·STRING$(40,25
       0)
{GiAt} 260·PEN·1:LOCATE·1,8
{DxGq} 270·PRINT"·THIS·PROGRAM·WILL··GIVE·YOU·T
       HE·OPTION··OF··CREATING·A··FILE·TO·STORE
       ·ALL·YOUR··MULTIFACE··CHEATS·IN.·IT·CAN·
       HOLD·UPTO··250·ENTRIES·AT·ANY·ONE·TIME.·
       TO·CREATE··A··FILE··JUST·SELECT··OPTION·
       1·AT··THE··MENU·PAGE."
{NmHm} 280·PRINT"·IF·YOU··WISH·TO·ADD·MORE··POK
       ES·INTO·A··SAVED·FILE·ALL·YOU·HAVE·TO·DO
       ·IS··JUST··LOAD·THE··FILE·AND·THEN··SELE
       CT·OPTION··ONE··AT··THE··MENU··PAGE·AND·
       WHAT·EVER··NUMBER·THE·LAST·FILE·FINISHED
       ·AT,·THAT··IS··WHERE··YOU·YOU·WILL";
{FjAq} 290·PRINT"·START·FROM"
{JjBu} 300·PEN·2:LOCATE·7,23:PRINT"<<·PRESS·ANY
       ·KEY·FOR·MENU·>>"
{MpAt} 310·CALL·&BB18:GOTO·80
{EmAr} 320·REM·Entering·Data
{MqAw} 330·CLS:PEN·2:PRINT·STRING$(40,251)
{JnBq} 340·PEN·1:LOCATE·11,3:PRINT"<<·ENTERING·
       DATA·>>"
{NjBk} 350·PEN·2:LOCATE·1,5:PRINT·STRING$(40,25
       0)
{MvBs} 360·PEN·1:LOCATE·7,7:PRINT"PRESS·[RETURN
       ]·TO·END·INPUT"
{DtAx} 370·WINDOW#1,1,40,22,25:CLS#1
{AqAu} 380·PRINT#1,STRING$(40,140)
{BoBr} 390·LOCATE·4,24:PRINT"VALID·MULTIFACE·AL
       PHA·NUMERICAL·="
{OtBs} 400·PEN·2:LOCATE·4,25:PRINT"A·B·C·D·E·F·
       -·0·1·2·3·4·5·6·7·8·9"
{GpAs} 410·WINDOW#2,1,40,9,21:CLS#2
{MkAo} 420·FOR·b=1·TO·250
{CqAx} 430·IF·LEN(name$(b))>0·THEN·490
{MkAx} 440·PRINT#2,"CAT·NUMBER·";b;"="
{DsAx} 450·INPUT#2,"NAME·OF·GAME···:·",name$(b)
{BmAw} 460·IF·name$(b)=""·THEN·500
{BpBl} 470·INPUT#2,"ADDRESS·&·POKE·:·",pok$(b)
{AtBl} 480·INPUT#2,"EFFECT·OF·POKE·:·",efc$(b)
{MwAk} 490·NEXT
{KvBq} 500·CLS:PEN·1:LOCATE·13,5:PRINT"NO·MORE·
       ENTRIES"
{JtCi} 510·LOCATE·2,7:PEN·2:PRINT"DO·YOU·WISH·
```

▶

BASIC tutorial... BASIC tutorial...

As I said last month, just about the most important concept in programming – programming with any language, is the loop. Without it, iterations, (processes repeated again and again) would have to be written into your program each time they were needed. Let's look at an example.

Say you wanted to collect medical history information from new hospital patients. Sounds like a perfect job for a computer right? A set of sensible questions would guide both questioner and questioned through standard medical history, enabling doctors to determine what state a new patient was in.

But without some kind of loop to ask those questions, the input statements would have to be written over and over again for each question – what a drag!

Which is where the loop comes in...

By using a loop, all you have to do is write a one-off code fragment which handles the questioning. Each time the program needs to ask a question, the looping lines of question code could be called ('called' means to invoke or use a sub-section of code).

And we could make it even simpler than that! The main program could consist of the loop of questioning code, and the program would loop around it again and again until some condition was met, say, reaching the end of the set questions, or a negative answer to a prompt such as "...continue?". Then the program could continue in a different vein, maybe calculating results or ending altogether.

See the possibilities?

And now let's look at a practical example using our string counting code from

```
       0·SAVE·THIS·FILE·(Y/N)";c$
{DqBj} 520·c$=INKEY$:IF·c$=""·THEN·520
{FnBl} 530·IF·c$="y"·OR·c$="Y"·THEN·550
{KoBl} 540·IF·c$="n"·OR·c$="N"·THEN·80
{CwAp} 550·REM·Save·File
{LkCl} 560·PEN·1:LOCATE·3,10:PRINT"PLEASE·ENTER·
       A·NAME·FOR·YOUR·FILE·-·"
{JtAu} 570·LOCATE·3,11:INPUT"=·",d$
{HoAt} 580·IF·d$=""·THEN·80
{BoAn} 590·OPENOUT·d$
{NsAo} 600·FOR·b=1·TO·250
{AlBj} 610·WRITE#9,name$(b),pok$(b),efc$(b)
{PjAk} 620·NEXT
{JlAo} 630·CLOSEOUT
{MxBu} 640·CLS:LOCATE·6,14:PRINT"((·YOUR·FILE·IS
       ·NOW·SAVED·))"
{FxCi} 650·LOCATE·1,16:PRINT"PLEASE·PRESS·ANY·KE
       Y·TO·RETURN·TO·MENU"
{JiAs} 660·CALL·&BB18:GOTO·80
{GrAq} 670·REM·Load·File
{LpAw} 680·CLS:PEN·2:PRINT·STRING$(40,251)
{OlBp} 690·PEN·1:LOCATE·12,3:PRINT"((·LOAD·A·FIL
       E·))"
{NjBj} 700·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250
       )
{BmEj} 710·PEN·1:LOCATE·1,7:PRINT"··PLEASE··MAKE
       ·SURE·YOU··HAVE·INSERTED····THE·CORRECT·
       TAPE/DISC·WHICH·CONTAINS····THE·FILE·YOU
       ·WANT·TO·LOAD."
{GvBs} 720·PEN·2:LOCATE·7,12:PRINT"PLEASE·NAME·T
       HE·FILE·TO·LOAD"
{HuAu} 730·LOCATE·7,13:INPUT"=·",e$
{FrAt} 740·IF·e$=""·THEN·80
{CmBs} 750·PEN·2:LOCATE·6,15:PRINT"((·YOUR·FILE·
       IS·NOW·LOADING·))"
{DvAn} 760·OPENIN·e$
{BlAp} 770·FOR·b=1·TO·250
{CiBj} 780·INPUT#9,name$(b),pok$(b),efc$(b)
{IuAk} 790·NEXT
{IpAn} 800·CLOSEIN
{BkBr} 810·LOCATE·6,15:PRINT"·((·YOUR·FILE·IS·NO
       W·LOADED·))"
{GuBs} 820·LOCATE·7,20:PRINT"((·PRESS·ANY··KEY·F
       OR·MENU·))"
{IlAs} 830·CALL·&BB18:GOTO·80
{CoAq} 840·REM·Search·File
{GwAx} 850·CLS:PEN·2:PRINT·STRING$(40,251)
{AmBp} 860·PEN·1:LOCATE·12,3:PRINT"((·SEARCH·A·F
       ILE·))"
{GjBj} 870·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250
       )
{EtBs} 880·LOCATE·8,9:PRINT"(·PRESS·ANY·KEY·WHEN
       ·READY·)
{KvBq} 890·PEN·1:LOCATE·2,11:INPUT·"NAME·TO·FIND
       ·:";find$
{CxAu} 900·IF·find$=""·THEN·80
{CnAv} 910·WINDOW#4,1,40,13,25:CLS#4·
{KjAp} 920·FOR·b=1·TO·250
{GqAk} 930·f=0
{BpBl} 940·f=INSTR(f+1,LOWER$(name$(b)),LOWER$(f
       ind$))
{EjAq} 950·IF·f=0·THEN··990
{EnBm} 960·PEN·2:PRINT#4,b;name$(b);"·";pok$(b)
{NsAt} 970·PRINT#4,TAB(4);efc$(b)
{PqAm} 980·GOTO·940
{GiAk} 990·NEXT
{OnAx} 1000·PRINT#4:PRINT#4,"SEARCH·FINISHED"
{DkAt} 1010·CALL·&BB18:GOTO·80
{MpAr} 1020·REM·End·Program
{BmAv} 1030·CLS:PRINT·STRING$(40,251)
{BmBt} 1040·PEN·1:LOCATE·12,3:PRINT"((·END·PROGR
       AM·))"
{LiBj} 1050·PEN·2:LOCATE·1,5:PRINT·STRING$(40,25
       0)
{HiDm} 1060·PEN·1:LOCATE·3,9:PRINT"HOW·DO·YOU·WI
       SH·TO·END·THE·PROGRAM":LOCATE·3,11:PRINT
       "EITHER·BY·-"
{GqBn} 1070·LOCATE·5,13:PRINT"1,·RETURNING·TO·BA
       SIC"
{OuBw} 1080·LOCATE·5,14:PRINT"(WITH·PROGRAM·STIL
       L·IN·MEMORY)"
{LpBr} 1090·LOCATE·5,17:PRINT"2,·RESETING·THE·MA
       CHINE"
{AnBm} 1100·PEN·2:LOCATE·2,19:PRINT"PLEASE·SELEC
       T·"
{FsBi} 1110·g$=INKEY$:IF·g$=""·THEN·1110
{EpBo} 1120·g=VAL(g$):IF·g=0·OR·g>2·THEN·1120·EL
       SE·1130
{AlAs} 1130·ON·g·GOSUB·1140,1150
{PtBq} 1140·CLS:BORDER·1:INK·0,1:INK·1,24:PEN·1:
       END·
{IjAm} 1150·CALL·0
{IoBt} 1160·PRINT"SORRY·THERE·IS·ANY·ERROR·IN·LI
       NE";ERL:END
```

LEDGER

WINNER! £20

When home computers first became available to the great unwashed (ie you lot), many self-styled experts decided that the machines must be put to sensible uses – teaching the kids, tracking your finances and generally helping out around the home. Having fun with your silicon was considered irresponsible.

They were wrong of course, as time and ten thousand or more games have proved.

But computers are perfectly adapted to shoving around otherwise incomprehensible figures, and Paul Hefferman's Ledger is here to show you why.

The program enables budding billionaires to keep an eye on expenditure by providing an on-screen ledger showing input and expenditure. You can open as many ledgers as disk space allows, edit and print them.

```
{LwAt} 10·'·Ledger·1991·Paul·Heffernan
{ImBr} 20·DIM·m$(12),inc(20),inc$(20),expend(20)
       ,expend$(20)
{EmBj} 30·MODE·2:INK·0,26:INK·1,0:BORDER·26
{HiCk} 40·INPUT·"Load·Opening·Balance·or·new·Ope
       ning·Balance·(Press·N·for·new·balance)";
       a$
{OrDj} 50·IF·UPPER$(a$)="N"·THEN·INPUT·"Sum·of·m
       oney·";bal:OPENOUT·"balance":WRITE·#9,ba
       l:CLOSEOUT
{JkBq} 60·OPENIN·"balance":INPUT·#9,bal:sp=bal:M
       16=bal
{BqBu} 70·DATA·Jan,Feb,Mar,April,May,June,July,A
       ug,Sept,Oct,Nov,Dec
{EwBp} 80·FOR·p=1·TO·12:READ·A$:m$(p)=a$:NEXT:m=
       1
{BpAm} 90·MODE·2
{IkBj} 100·LOCATE·1,1:PRINT·"Month·:";m$(m)
{LpAw} 110·LOCATE·20,1:PRINT·"Title·";t$
{PxBv} 120·LOCATE·58,1:PRINT·"Balance·";USING·"#
       ########,.##";bal
{PoBo} 130·LOCATE·1,2:FOR·p=1·TO·80:PRINT·"-
       ";:NEXT
{PkAq} 140·WINDOW·1,80,25,3
{AkBs} 150·LOCATE·38,2:PRINT·"Menu":LOCATE·38,3:
       PRINT·"----"
{HlBm} 160·LOCATE·32,4:PRINT·"1.·Change·Month"
{MwBj} 170·LOCATE·32,6:PRINT·"2.·Enter·Title"
{OvBm} 180·LOCATE·32,8:PRINT·"3.·Enter/Edit·Ledg
       er"
{ApBk} 190·LOCATE·32,10:PRINT·"4.·Save·Ledger"
{BwBl} 200·LOCATE·32,12:PRINT·"5.·Load·Ledger"
{DbBl} 210·LOCATE·32,14:PRINT·"6.·View·Ledger"
{IqBm} 220·LOCATE·32,16:PRINT·"7.·Print·Ledger"
{AsBk} 230·LOCATE·32,18:INPUT·"Enter·no.";n
{KqBn} 240·ON·n·GOSUB·260,310,330,690,770,820,90
       0
{AqAm} 250·GOTO·90
{LmCp} 260·CLS:WINDOW·1,80,25,1:FOR·p=1·TO·12:LO
       CATE·36,p+5:PRINT·p;m$(p):NEXT
{CwCq} 270·WINDOW·1,80,25,1:bal=g:LOCATE·58,1:PR
       INT·"Balance·";USING·"#########,.##";bal
```

BASIC tutorial... BASIC TUTORIAL...

last month. This is what it looked liked:

```
10 REM This is a program to count the characters in a string
20 INPUT "Please type a string"; A$
30 PRINT "The string '"A$"' is "LEN (A$) "characters long."
40 END
```

You'll remember that if we wanted to use the program a second or third time, we had to run it again. Let's suppose, though, that you know exactly how many strings you want to count. Here's how we could use a loop:

```
10 REM This is a program to count the characters in a string
20 FOR CNT=1 to 5
30 A$=""
40 INPUT "Please type a string"; A$
50 PRINT "The string '"A$"' is "LEN (A$) "characters long."
60 NEXT CNT
70 END
```

Regular readers will remember their brief introduction to the FOR ... NEXT construction in the first instalment of the BASIC tutorial, but this is the first time we've used it in anger. So what's happening?

```
{IxBl} 280·LOCATE·36,20:PRINT·"Enter·month·no."
{CqBm} 290·LOCATE·8,1:INPUT·m:IF·m<1·OR·m>12·THEN·290
{NuAm} 300·GOSUB·90
{HiBq} 310·CLS:WINDOW·1,80,25,1:LOCATE·26,1:INPUT·"",t$
{MmAm} 320·GOSUB·90
{GvDn} 330·inc$(1)="Opening·Balance":inc(1)=bal:ak47=bal:CLS:MOVE·320,0:DRAWR·0,370:MOVE·325,0:DRAWR·0,370:MOVE·315,0:DRAWR·0,370
{LuCp} 340·LOCATE·1,2:PRINT·"Opening·Balance·";:LOCATE·27,2:PRINT·USING·"#########,.##";bal
{JqAn} 350·sp=bal
{PnDq} 360·FOR·p=2·TO·20:LOCATE·1,p+1:sc$=inc$(p):sc=inc(p):INPUT·"",inc$(p):IF·inc$(p)="*"·THEN·inc$(p)="":GOTO·390
{HtBl} 361·IF·inc$(p)=""·THEN·inc$(p)=sc$
{CmAw} 362·IF·inc(p)=0·THEN·inc(p)=sc
{CrAx} 370·LOCATE·27,p+1:INPUT·"",inc(p)
{CnDi} 380·LOCATE·1,p+1:PRINT·inc$(p);"········":LOCATE·27,p+1:PRINT·USING"#########,.##";inc(p):NEXT
{LiEp} 390·y=1:FOR·p=1·TO·20:LOCATE·43,p+1:sc$=expend$(p):sc=expend(p):INPUT·"",expend$(p):IF·expend$(p)="*"·THEN·expend$(p)="":GOTO·420
{KpBq} 391·IF·expend$(p)=""·THEN·expend$(p)=sc$
{BmBn} 392·IF·expend(p)=0·THEN·expend(p)=sc
{OsBj} 400·LOCATE·68,y+1:INPUT·"",expend(p)
{AjDu} 410·LOCATE·43,p+1:PRINT·expend$(p);"········":LOCATE·68,p+1:PRINT·USING"#########,.##";expend(p):y=y+1:IF·y=22·THEN·CLS
{CmAm} 415·NEXT
{KsBw} 420·v=0:FOR·p=1·TO·1000:v=v+inc(p):IF·inc(p)=0·THEN·430·ELSE·NEXT
{MiCk} 430·b=0:FOR·c=1·TO·1000:b=b+expend(c):IF·expend(c)=0·THEN·440·ELSE·NEXT
{AmCv} 440·IF·c>p·THEN·LOCATE·27,c+4:PRINT·"-------------":LOCATE·68,c+4:PRINT·"-------------"
{CrCu} 450·IF·p>c·THEN·LOCATE·27,p+4:PRINT·"-------------":LOCATE·68,p+4:PRINT·"-------------"
{EsCt} 460·IF·p=c·THEN·LOCATE·27,p+4:PRINT·"-------------":LOCATE·68,p+4:PRINT·"-------------"
{DoAv} 470·IF·v>b·OR·v=b·THEN·530
{HrAt} 480·IF·b>v·THEN·610
{IqCq} 490·WINDOW·1,80,25,1:bal=g:LOCATE·58,1:PRINT·"Balance·";USING·"#########,.##";bal
{ImBj} 495·IF·prntr$="OKAY"·THEN·RETURN
{PlCr} 500·WINDOW·1,80,25,1:LOCATE·28,2:PRINT·"Press·any·key·for·menu":WHILE·INKEY$="":WEND
{OnBv} 510·LOCATE·1,2:FOR·p=1·TO·80:PRINT·"-";:NEXT:WINDOW·1,80,25,3
{EuAr} 520·sd=bal:RETURN
{AxCi} 530·IF·c>p·OR·c=p·THEN·LOCATE·27,c+5:PRINT·USING"#########,.##";v
{IuBx} 540·IF·p>c·THEN·LOCATE·27,p+5:PRINT·USING"#########,.##";v
{EkCj} 550·IF·c>p·OR·c=p·THEN·LOCATE·68,c+5:PRINT·USING"#########,.##";v
{NlBx} 560·IF·p>c·THEN·LOCATE·68,p+5:PRINT·USING"#########,.##";v
{MwDm} 570·IF·c>p·OR·c=p·THEN·LOCATE·43,c+3:PRINT·"Closing·Balance·";:LOCATE·68,c+3:PRINT·USING"#########,.##";v-b
{IqDl} 580·IF·p>c·THEN·LOCATE·43,p+3:PRINT·"Closing·Balance·";:LOCATE·68,p+3:PRINT·USING"#########,.##";v-b
{FlAl} 590·g=v-b
{AnAm} 600·GOTO·490
{CvCi} 610·IF·c>p·OR·c=p·THEN·LOCATE·27,c+5:PRINT·USING"#########,.##";b
{NtBx} 620·IF·p>c·THEN·LOCATE·27,p+5:PRINT·USING"#########,.##";b
{MkCj} 630·IF·c>p·OR·c=p·THEN·LOCATE·68,c+5:PRINT·USING"#########,.##";b
{ImBx} 640·IF·p>c·THEN·LOCATE·68,p+5:PRINT·USING"#########,.##";b
{JxDm} 650·IF·c>p·OR·c=p·THEN·LOCATE·1,c+3:PRINT·"Closing·Balance·";:LOCATE·27,c+3:PRINT·USING"#########,.##";b-v
{OoDm} 660·IF·p>c·THEN·LOCATE·1,p+3:PRINT·"Closing·Balance·";:LOCATE·27,p+3:PRINT·USING"#########,.##";b-v
{CxAm} 670·g=v-b
{DvAm} 680·GOTO·490
{NtBv} 690·CLS:CAT:INPUT·"Filename·:",f$:IF·LEN(f$)<1·OR·LEN(f$)>8·THEN·90
{CmAn} 695·ak47=bal
{MvAw} 700·OPENOUT·f$:WRITE·#9,m$(m),t$,bal
{BqBi} 710·IF·c>p·THEN·WRITE·#9,c:n=c
{JxBi} 720·IF·p>c·THEN·WRITE·#9,p:n=p
{ImAw} 730·IF·c=p·THEN·WRITE·#9,c:n=c
{NxCk} 740·FOR·p=1·TO·20:WRITE·#9,inc(p),inc$(p),expend(p),expend$(p):NEXT
{MpAo} 750·CLOSEOUT
{HwAm} 760·GOTO·90
{FnBw} 770·CLS:CAT:INPUT·"Filename·:",f$:IF·LEN(f$)<1·OR·LEN(f$)>8·THEN·90
{NsAw} 780·OPENIN·f$:INPUT·#9,m$(m),t$,bal,n
{GuCk} 790·FOR·p=1·TO·20:INPUT·#9,inc(p),inc$(p),expend(p),expend$(p):NEXT
{IpAn} 800·CLOSEIN
{EqAn} 810·GOTO·90
{MnCm} y=1:CLS:MOVE·320,0:DRAWR·0,370:MOVE·325,0:DRAWR·0,370:MOVE·315,0:DRAWR·0,370
{DmCs} 830·bal=sp:LOCATE·1,2:PRINT·"Opening·Balance·":LOCATE·27,2:PRINT·USING·"#########,.##";sp
{EmCt} 835·LOCATE·43,2:PRINT·expend$(1);"········":LOCATE·68,2:PRINT·USING"#########,.##";expend(1)
{GrAq} 840·FOR·p=2·TO·20
{BqAx} 845·IF·y=22·THEN·GOSUB·2000
{BrAm} 846·y=y+1
{FkBq} 847·IF·inc$(p)=""·AND·expend$(p)=""·THEN·880
{OqAt} 848·IF·inc(p)=0·THEN·855
{IiCr} 850·LOCATE·1,y+1:PRINT·inc$(p);"········":LOCATE·27,y+1:PRINT·USING"#########,.##";inc(p)
{ClAx} 855·IF·expend(p)=0·THEN·865
{FwCw} 860·LOCATE·43,y+1:PRINT·expend$(p);"········":LOCATE·68,y+1:PRINT·USING"#########,.##";expend(p)
{LwAk} 865·NEXT
{JwAs} 880·nb$="Y":GOSUB·420
{JsBi} 885·IF·prntr$="OKAY"·THEN·RETURN
{JsAs} 890·bal=sd:GOTO·90
{DwBk} 900·prntr$="OKAY":GOSUB·820:PRINT·#8,""
{KoCl} 901·x=1:l=1:FOR·p=1·TO·2*80:LOCATE·x,l:t$=COPYCHR$(#0):PRINT·#8,t$;:x=x+1
{FkBo} 902·IF·x=81·THEN·x=1:l=l+1:PRINT·#8,""
{PrAl} 903·NEXT
{OqAv} 910·x=1:l=3:FOR·p=1·TO·22*80
{FjAw} 920·LOCATE·x,l:x$=COPYCHR$(#0)
{FkAp} 930·PRINT·#8,x$;
{CuBq} 940·x=x+1:IF·x=81·THEN·x=1:l=l+1:PRINT·#8,""
{OwAt} 950·NEXT:IF·p>21*80·THEN·250·
```

STAR DODGE



Here's an absolute corker! Star Dodge, like all the best games, is the simplest of ideas coupled with the funkiest of fast gameplay to provide a space-based thrash that will keep you playing long after the rest are gathering dust at the bottom of your toy-box.

Play area consists of star field dotted around with killer meanies (asterisks actually, but use your ▶

BASIC tutorial... BASIC tutorial...

Well, line 20 is saying: I want to loop around the following code 5 times, so set up a loop counter called CNT (the shorter a loop counter the better – I'll tell you why later – but do keep 'em obvious) and specify how many times I want to loop. Got that?

BASIC now knows we want to loop five times. So let's start looping!

Line 30 ensures that there's nothing in the string variable A$ and that its made null again after each progression through the loop.

Lines 40 and 50 are our standard input prompt, variable assignment and calculations.

Now here comes the second part of that FOR ... NEXT loop construction. Line 60 says: Fine. We've done our stuff once, let's run through the next occurrence of CNT (currently equal to 1) and loop again. BASIC follows this instruction and zips back to line 30 (NOT line 20. We don't want to reassign the loop counter all over again else CNT will always be one and the loop will be endless!).

And on the process goes. BASIC remembers what CNT equals and after each time through the loop increases its value by one until the value equals six (not five. Otherwise we'd only go around the loop four times...). When that happens, the loop ends and the rest of the program is processed.

You can check what's happening to that loop counter by adding the line:

```
55 PRINT CNT
```

imagination, OK?). You have to cross the star field without hitting the meanies and squeeze through a black hole at the far side of the screen.

The trouble is, your ship moves diagonally across the screen at a tremendous rate, and the only way to keep it from hitting anything is to alter the direction of the diagonal with the space bar – it's fiendishly difficult and very, very addictive. Don't believe me? Try it for yourselves! Just goes to show that sometimes the simplest ideas are the best...

Star Dodge is the code of a clever chap by the name of Graham French. Well done young Master French, twenty quid's winging its way to you as I write.

```
{AoAu} 10·'**····STAR·DODGER·v2···**
{IoAs} 20·'**·G.·French·(14-2-92)·**
{BsAj} 30·'
{KvAo} 40·'**·SET·UP·**
{FiAr} 50·DEFINT·a-z:GOSUB·1110
{FsAu} 60·ENV·1,15,-1,10:ENT·1,15,-1,10
{PtAq} 70·'**·INSTRUCTIONS·**
{EvAs} 80·MODE·1:fin=0:q=5:sp=0
{DmBj} 90·INK·0,0:BORDER·0:INK·2,26:INK·3,0
{AmAt} 100·INK·1,21:SPEED·INK·2,10
{GkBo} 110·a$="StarDodger":a=17:y=1:GOSUB·1160
{FmCl} 120·a$="Avoid·the·killer·Asterisks,·and·seek·the":a=2:y=5:GOSUB·1160
{MsBu} 130·a$="wondrous·Nextscreen·Gap.":a=10:y=6:GOSUB·1160
{KwBo} 140·a$="Use·SPACE·to·climb":a=13:y=13:GOSUB·1160
{IjCi} 150·a$="Do·you·want·the·slow·speed·Y/N":a=8:y=16:GOSUB·1160
{AmCt} 160·a$=UPPER$(INKEY$):IF·a$="Y"·THEN·sd=1·ELSE·IF·a$="N"·THEN·sd=0·ELSE·160
{HkAn} 170·GOSUB·550
{AkAv} 180·'**·GAME·SCREEN·**
{AjAt} 190·MODE·1:yt=228:yb=172
{BoBk} 200·DRAWR·629,0,2:DRAWR·0,170:MOVER·0,60
{JkBl} 210·DRAWR·0,169:DRAWR·-629,0:DRAWR·0,-399
{KnBj} 220·DRAWR·0,2:DRAWR·627,0:DRAWR·0,168
{GxBl} 230·MOVER·0,60:DRAWR·0,167:DRAWR·-625,0
{PjBl} 240·DRAWR·0,-399:MOVE·636,0:DRAW·636,399,3
{AuBl} 250·MOVE·638,0:DRAW·638,399:PLOT·-1,-1,1
{HrBs} 260·IF·q>=45·THEN·INK·1,21,0:sp=sp+1:SPEED·INK·3,1+sp
{LqAx} 270·IF·sd·THEN·d=3·ELSE·d=4
{DkAr} 280·TAG:FOR·s=1·TO·q
{DuAw} 290·MOVE·50+RND*561,20+RND*361
{MiBk} 300·PRINT"*";:NEXT:TAGOFF:MOVE·0,200
{AtBn} 310·IF·q>55·THEN·EVERY·25,2·GOSUB·1230
{KuAl} 320·dd=d
{JlAr} 330·'**·THE·GAME·**
{BqAp} 340·DRAWR·dd,d,2
{IoBo} 350·IF·INKEY(47)=0·THEN·d=dd·ELSE·d=-dd
{BtAq} 360·t=TESTR(2,d/2)
{HsAu} 370·IF·t=1·OR·t=2·GOTO·410
{JtBo} 380·IF·t=3·THEN·SOUND·1,50,150,15,1,1:GOTO·510
{LxAw} 390·MOVER·-2,-d/2:GOTO·340
{KqAs} 400·'**·HIT·SUMMIT'·NASTY·**
{MoBj} 410·i=REMAIN(2):SOUND·1,0,150,15,1,,31
{DvBJ} 420·BORDER·26:INK·0,26:INK·1,0:INK·2,0
{NtAq} 430·INK·1,21:INK·2,26
{OmBk} 440·MODE·1:BORDER·0:INK·0,0:scr=(q/5)-1
{HJBu} 450·a$="YOU·WERE·ZAPPED·BY·A·KILLER·ASTERISK":a=4:y=1:GOSUB·1160
{BwCk} 460·a$="Number·of·screens·completed·=·"+STR$(scr):a=6:y=13:GOSUB·1160
{AsAn} 470·GOSUB·550
{PsAv} 480·IF·scr>h(6)·THEN·GOTO·600
{GtAp} 490·fin=1:GOTO·600
{PoAs} 500·'**·COMPLETED·SCREEN·**
{OoAs} 510·MODE·1:i=REMAIN(2)
{MlBw} 520·a$="YOU·MADE·IT·THROUGH·THE·KILLER·ASTERISKS":a=2:y=1:GOSUB·1160
{LjBw} 530·a$="Stand·by·for·Screen·"+STR$((Q/5)+1):a=11:y=13:GOSUB·1160
{FiAu} 540·GOSUB·550:q=q+5:GOTO·190
{GIBl} 550·a$="Press·any·key·to·continue."
{CiAv} 560·a=9:y=25:GOSUB·1160
{MmAx} 570·WHILE·INKEY$<>"":WEND:CALL·&BB18
{FvAn} 580·RETURN
{FsAx} 590·'**·ENTER·NAME·INTO·HALL·OF·FAME·**
{KqAv} 600·MODE·0:s=2:EVERY·5·GOSUB·1060
{OuAs} 610·EVERY·3,1·GOSUB·1070
{HqAt} 620·IF·fin·THEN·920
{PkBk} 630·FOR·n=3·TO·15:INK·n,0:NEXT:PEN·1
{AiBj} 640·LOCATE·4,1:PRINT"**·WELL·DONE·**"
{KxAs} 650·INK·2,26:PEN·2:PRINT
{MqBk} 660·PRINT"·YOU·ARE·ONE·OF·THE·":PRINT
{ErAx} 670·PRINT"··BEST·STARDODGERS··":PRINT
{GjAw} 680·PRINT"··IN·THE·UNIVERSE."
{InAs} 690·a$="ENTER·YOUR·NAME"
{KmBj} 700·PRINT:PRINT:PRINT:PRINT·TAB(3);
{LmAv} 710·z=3:FOR·n=1·TO·LEN(a$)
{KlBr} 720·x$=MID$(a$,n,1):IF·x$="·"·THEN·PRINT"·";:GOTO·740
{NuAr} 730·PEN·z:PRINT·x$;:z=z+1
{PmAj} 740·NEXT
{GjBl} 750·LOCATE·7,15:PEN·2:PRINT")------("
{EpBk} 760·h$="":FOR·n=1·TO·7:LOCATE·n+7,15
{CtBn} 770·a$=UPPER$(INKEY$):IF·a$=""·THEN·770
{JjAx} 780·IF·a$=CHR$(13)·THEN·n=8:GOTO·830
{OxBl} 790·IF·a$=CHR$(127)·THEN·n=8:q=1:GOTO·830
{OoBi} 800·IF·a$<"·"·OR·a$>"~"·THEN·770
{CxAt} 810·IF·n=7·THEN·770
{JrAv} 820·PEN·1:PRINT·a$;:h$=h$+a$
{MqBi} 830·NEXT·n:IF·q=1·THEN·q=0:GOTO·750
{MvAt} 840·h$(7)=h$:h(7)=scr
{OmBi} 850·w=1:WHILE·w:w=0:FOR·i=2·TO·7
{GxBk} 860·IF·h(i)>h(i-1)·THEN·GOSUB·880
{OmAr} 870·NEXT:WEND:GOTO·920
{IpAx} 880·a$=h$(i):a=h(i):h$(i)=h$(i-1)
{PtBJ} 890·h(i)=h(i-1):h$(i-1)=a$:h(i-1)=a
{JvAp} 900·w=1:RETURN
{GmAv} 910·'**·DISPLAY·HALL·OF·FAME·**
{LJBm} 920·CLS:PEN·1:PRINT"··**·THE·TOP·SIX·**"
{HvAw} 930·x=REMAIN(1):RESTORE·950
{OnAw} 940·FOR·n=2·TO·7:READ·i:INK·n,i:NEXT
{GuAr} 950·DATA·6,15,24,21,11,8
{EwBi} 960·LOCATE·1,4:FOR·n=1·TO·6:PEN·n+1
{FiBk} 970·PRINT·USING"·\·········\··###";h$(n),h(n)
{LrAn} 980·PRINT:NEXT
{DvAw} 990·LOCATE·1,25:INK·8,26:PEN·8
{HnAu} 1000·PRINT"···PRESS·SPACE·BAR";
{GjAs} 1010·WHILE·INKEY$<>"":WEND
{PvBj} 1020·WHILE·INKEY$<>"·":WEND:MODE·1
{MoBk} 1030·INK·3,26:INK·1,26:INK·2,26:PEN·1
{DjAs} 1040·x=REMAIN(0):GOTO·80
{EoAs} 1050·'**·INK·FLASH·INTERRUPTS·**
{FpAw} 1060·INK·1,INT(RND*26)+1:RETURN
{FsBj} 1070·IF·s>15·THEN·s=15:t=0:st=-1
{NlAw} 1080·IF·s<3·THEN·s=3:t=21:st=1
{AqAu} 1090·INK·s,t:s=s+st:RETURN
{DlAq} 1100·'**·INITIALISE·**
{JsBi} 1110·DIM·h$(7),h(7):RESTORE·1130
{JiBj} 1120·FOR·n=1·TO·6:READ·h$(n),h(n):NEXT
{KjBr} 1130·DATA·GRAHAM,12,EGGY,10,NOB,8,MARK,6,SARAH,4,HILARY,2
{DpAo} 1140·RETURN
{CjAu} 1150·'**·MESSAGE·PRINT·ROUTINE·**
{DnBj} 1160·INK·1,21:FOR·n=a·TO·a+LEN(a$)-1
{IvAx} 1170·LOCATE·n,y:PEN·1:PRINT"*"
{GnAt} 1180·LOCATE·n-1,y:PEN·2
{OuAx} 1190·PRINT·MID$(a$,n-(a-1),1):NEXT
{DlBi} 1200·LOCATE·a+LEN(a$)-1,y:PRINT"·"
{PkAn} 1210·RETURN
{BrAw} 1220·'**·GAP·CLOSE·INTERRUPT·**
{NjAp} 1230·x1=XPOS:y1=YPOS
{KxAu} 1240·PLOT·629,yb,2:PLOT·629,yt
{HoAv} 1250·PLOT·627,yb:PLOT·627,yt
{GtBm} 1260·yt=yt-2:yb=yb+2:MOVE·x1,y1:RETURN
```

BASIC tutorial... BASIC TUTORIAL...

Now the value of CNT is printed each time the loop is processed.

One important feature that you should bear in mind about the FOR ... NEXT loop is that it is always traversed at least once. The second important feature of any loop is that you should NEVER jump out of them before they're complete. That is, to do this:

```
55 IF CNT=3 THEN GOTO 250
```

What's happening here is that we're checking for some condition within the loop, then prematurely ending its process and exiting – an indescribably naughty thing to do for reasons which will become clear as we progress through the tutorials! (Although at this stage, it may seem that there'd never be any need to jump out, and that there'd be no harm if you did.)

There are ways and means to quit loops without sending your CPC running for cover, and we'll discuss them later.

Back to the loop. You now have a fragment of code which will perform a given task the requisite number of times without any intervention from you (except, of course, to type the strings.) Funky, right? But still bare-bones stuff. What happens if you give the program to someone else and they run it and type in gibberish, control codes and the like? No problem. All we have to do is add some error checking.

But that, says Hammy Hamster, is another story. See you next month.

top 10

1) LURKING HORROR
(INFOCOM, DISK ONLY)

The best Infocom game ever, simply oozing atmosphere. Need we say more? **92% (AA27)**

2) LORDS OF CHAOS
(BLADESOFT)

Brilliant strategy game with up to four players at once. Lots of worlds to explore and loads of spells to cast. **84% (AA59)**

3) CORRUPTION
(MAGNETIC SCROLLS, DISK ONLY)

Yuppie insider dealing and power struggles make this probably the best Magnetic Scrolls game around. **88% (AA40)**

4) BARDS TALE
(ELECTRONIC ARTS)

Probably the best role playing game released on the Amstrad. You must destroy the evil Mangar but the road is long and dangerous! **90% (AA36)**

5) PRICE OF MAGICK
(LEVEL 9)

A massive map, verbose text and lots of puzzles. One of Level 9's best games. **90% (AA10)**



6) HEROES OF KARN
(INTERCEPTOR)

Brilliant graphics but a truly lousy parser. If you don't mind battling with the vocabulary, it is a very enjoyable game. **75%**

7) MAGNETIC MOON
(FSF, DISK ONLY)

Well written home-brew adventure with a massive map, impressive parser and very tricky puzzles! Text only. **90% (AA72)**

8) THE SPIRO LEGACY
(GUILD ADVENTURE SOFTWARE, DISK ONLY)

PAW author extraordinaire, Ken Bond, with probably his best game – clever puzzles and great text . Text only. **88% (AA69)**

9) SIM CITY
(INFOGRAMES)

Strategy cum simulation game in which you must build, develop and manage a sprawling metropolos. Great effects and well put together. **82% (AA63)**

10) PAW
(GILSOFT, DISK ONLY)

Not strictly a game but you can have a lot of fun using it – the best adventure writer software available on the Amstrad. **90% (AA28)**

Adventure and Strategy

the buyers GAMES guide

Draw that sword and light your lamp and get ready for the low-down on the adventure games which have lit up the CPC. The infamous Balrog is your guide...

'Adventures? Nah – they're just for freaks who can't play arcade games – give me *Final Fight* any day!' The Balrog doesn't agree! Adventures have come a long way since the early verb noun input (which, to be honest, was a real pain and was only really enjoyable to masochists!) and many of the adventures listed in the top 10 have very powerful parsers (the bit that understands what the player types). Adventures may be boring to some people but if you give them time they can be become very challenging – it's true that they take slightly longer to get into compared to an arcade blast, but your average adventure can take many weeks if not months to solve – how about that for value for money!

What is an adventure? Infocom used the term 'interactive fiction' and this is perhaps the best description of an adventure – the adventure game is like a book where you control the central character and dictate the plot of the book by typing your commands in plain English each time you see the prompt (usually something like 'What now?' or '>'). You decide the central character's actions and ultimately whether he or she succeeds in the story.

However, rather than just list the top 10 adventures, the Balg has included some of his favourite strategy games as well.

Most of the best games are unfortunately disk only (sorry 464 owners!) – a disk allows a lot more game. Graphics can sometimes add to a game (as in the case of *Heroes of Karn*) but don't expect much from most games – many graphics are rubbish! A good parser is an important feature of a good adventure – the more words the game can understand, the more user-friendly it will be. A good game also usually is big – they take a long time to solve as they have many puzzles and problems. However, these puzzles should not be too hard – you don't want to put the player off. Many other factors can make a game good, including originality, atmosphere, interaction, puzzles and plot.



● Adventures can be up to date – like Corruption.

Finally a couple of notes about the top ten, opposite:

1) Many of the games listed are unfortunately no longer available. This is a shame but keep diligently scanning the small ads and car boot sales and you could be in luck!

2) Many brilliant games have been ommitted. Basically, nearly all of the Infocom, Magnetic Scrolls or Level 9 games are very good and usually much better than the games available at present..

Lurking Horror
(INFOCOM)

In *Lurking Horror* you are a student at G.U.E. Tech. You have braved a snowstorm to get to the Computer Centre and finish work on an assignment. But the snowstorm has turned into a raging blizzard, and has trapped you in a complex of buildings late at night. You are not alone, fortunately... or perhaps unfortunately. Thus you begin the story, unaware that anything may be wrong beneath the surface of the quiet campus.

Written by Dave Lebling, co-author of the *Zork* trilogy and author of *Suspect*, *Lurking Horror* is one brilliant game! The game is based on the writings of H.P. Lovecraft, a famous horror author who scares his readers not through gore but by building the suspense and atmosphere to such an extent that the reader becomes engrossed in the story. Lebling has this ability to engross the reader in interactive fiction and drags you fighting and kicking into the world of Lurking Horror.

The text only aspect of the game adds to the atmosphere of the game. Rather than seeing some poor graphic of a horrible denizen, you have to use your imagination...

Addictive right from the start, the atmosphere is electric. In fact this is the only game where the Balg did not draw a map – the atmosphere was so good that the map burned itself on my brain

Lurking Horror rightly

the buyers guide

educational software

Computers aren't just for playing games on, or even solely for keeping track of your business dealings. Because they are so 'interactive' (they can respond according to what you type in) they also make excellent 'teachers'... which is why so much educational software is available, teaching everything from the three 'R's to nuclear physics. Rod Lawton is your guide in the last Buyers Guide in the series (sob sob)...

The Amstrad is not well-known in educational circles. Most schools are thoroughly committed to that shambling relic the BBC, not to mention the PC-type Nimbus machine. Some use Acorn's super-wizzo 32-bit Archimedes (via BBC emulators – ha ha), but only a small number use Amstrads.

Which is a shame, since the Amstrad is about a billion times more sophisticated than the BBC and costs about the same.

So although there is a huge amount of educational software out there (and we mean huge), only a certain proportion is available on the CPC. However, students of most GSCE subjects should be able to find relevant software via Rickitt Educational Media's highly impressive software directory (see box).

The only problem with educational software is that it tends to be a bit... well, *dull*. Which is why Database Software's *Fun School* programs did so well. Having created a 'fun' educational market and then cornered it for so many years, Database now has a bit of competition. First off was *Donald's Alphabet Chase from* Disney Software, reviewed back in *AA70*. This, though, was a bit of an old dog. It looked great, but ran a bit slowly and didn're really do very much for the money. Funny, we haven't heard much about Disney Software since then...

More recently, there's the imminent appearance of the first *Shoe People* release. Look out for a review real soon.

In general, it's youngsters who get the best deal out of educational software – that's where most programming effort and imagination has gone. Ages up to 11 are well catered for with releases like *Fun School* and *Junior Quiz*, to name but two. Older students, though, are faces with a wide range of programs in specific areas, all of which are a bit on the dour side.

One of the main problems with CPC software in general is that the best software was written years ago (sad, but true). Wih one or two notable exceptions, the decent serious stuff is no longer available. One of these exceptions is educational software!

Educational software seems to have a very long 'shelf life'. The same is true of its publishers! While other publishers come and go, software houses who were distributing educational programs five years ago are still with us today. Come to that, so are their programs. The only things to change are the prices. Whereas *games* which have been out for a little while come down in price (first when they appear in compilations, and then later when they are re-released on budget labels), educational program seem to go *up* in price. Hmm... inflation, we suppose. Perhaps it's because most educational software is sold to schools, rather than cost-conscious, bargain-hunting private users?

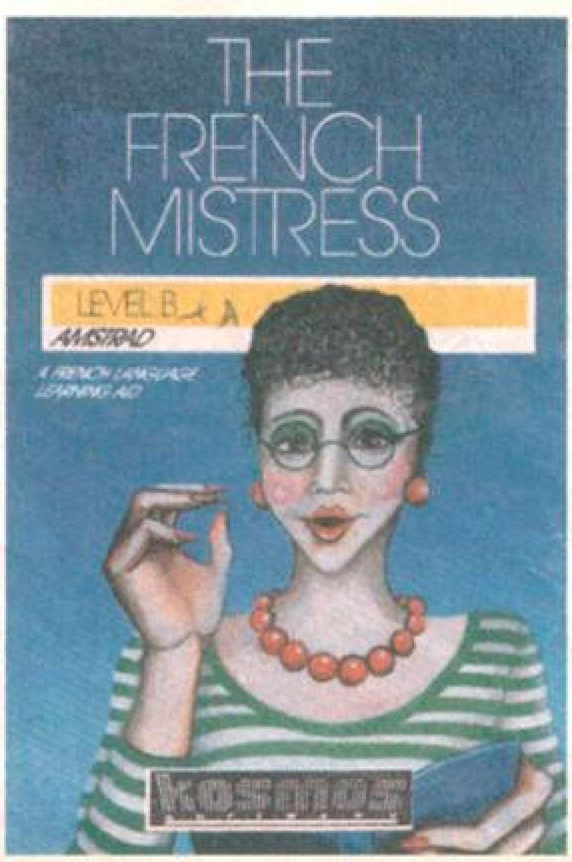
The poor standard of much educational software can be attributed to this. Without the kind of mass market competition seens in the games industry, perhaps we shouldn't be too surprised that educational software is, generally, uninspiring, unoriginal and poorly programmed.

Which is why the *Fun School* series stands out as being the best educational software you can get for your child.

THE FRENCH MISTRESS

Kosmos • £20.39 disk • 0525 873942

This is a program for students who already know the basic rudiments of French. It's also designed to be used in conjunction with textbooks, so don't expect to be able to master the language with this package alone (that's just a bit too ambitious, even for the best computer software!). The program consists of a series of lessons, each one building on vocabulary that's been learned so far. This the the only weakness of the series – not much variety.



As well as *The French Mistress*, Kosmos also produces *The German Master*, *The Italian Tutor* and *The Spanish Tutor*.

ANSWER BACK JUNIOR QUIZ

Kosmos • £14.25 disk • 0525 873942

Not surprisingly, *Junior Quiz* is a general-knowledge program that comes with 750 questions to tax youngsters in the 6-11 age group. Extra variety is provided in the way these questions can be answered: multiple choice, true or false or 'missing letters'. Worried about using up the potential of those 750 questions? There are no fewer than 15 add-on 'modules' (£9.14 disk) in the *Factfile 500* series, each of which offers 500 additional questions on specific subjects. These subjects include Artithmetic, Spelling, Sport, Natural History and Geography.

CHEMISTRY REVISION

Bourne Education • £16.95 tape, £23.95 disk • 0794 523301

This is one of the better programs for older students. It provides several programs designed to test your knowledge of the subject via multiple choice questions or ones where you have to fill in gaps in the text. There are lots of questions, and the inclusion of graphics and sound effects spice things up no end. There is also a rather good Physics version.

PAN COURSE TUTORS

The trouble with these packages is getting hold of them. Long since discontinued, they may still be available via mail order suppliers or bookshops, though – you'll just have to shop around.

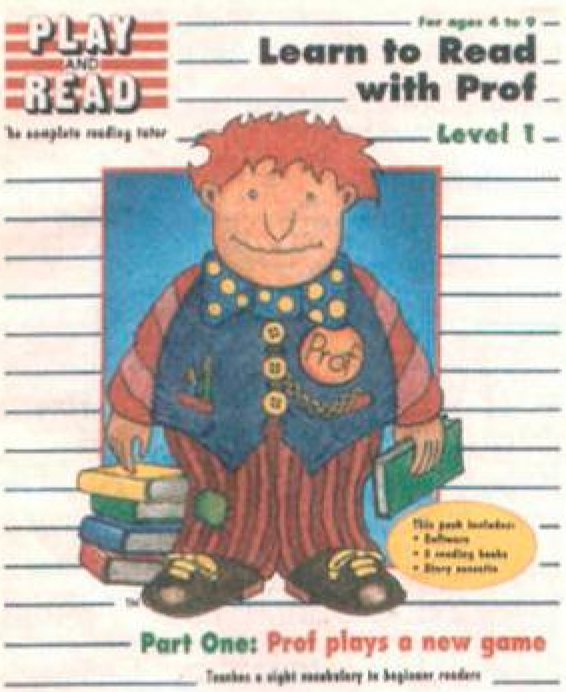
We know of at least five titles: Physics,

Chemistry, Biology, French and Maths. Each cost £14.95 (cassette). Each package contained two tapes, an instruction booklet and a Pan *Study Aid* book. It all sounds pretty weighty, and it is. Weighty, but good.

You start off by doing 'diagnostic tests' to work out where your areas of weakness lie – the computer gives you a full report. Then you move on the the Learning Modules (the *Study Aids* books may be needed here). The Physics version offers 23 modules, each containing problems to work out (diagrams are included). Formidable stuff. Bear in mind, though, that these *Course Tutors* aren't designed to make learning fun. They're designed to make it effective.

LEARN TO READ WITH PROF

Prisma Software • £14.99 tape, £17.99 disk • 0244 326244



How do you get your little 'un to learn to read? Well, you could sit them down in front of one of those little picture books and lead them through the hard way OR you could get *Learn to Read with Prof*, from Prisma Software. This uses computer software in conjunction with audio cassettes and books to teach the child reading skills – a true multimedia experience! However, it has to be said that the 'game' provided by the computer software is distinctly basic compared to the sort of thing we've seen in the *Fun School* series. And to finish the entire reading course means buying several successive *Prof* packages in the series, so it could prove expensive in the long run.

Simply the best... (better than all the rest)

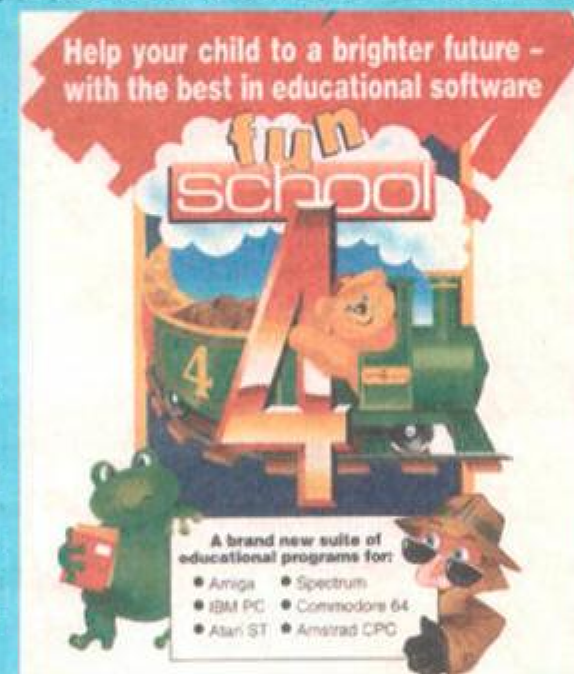
FUN SCHOOL 4

Database Software • £12.99 tape, £16.99 disk • 0625 859333

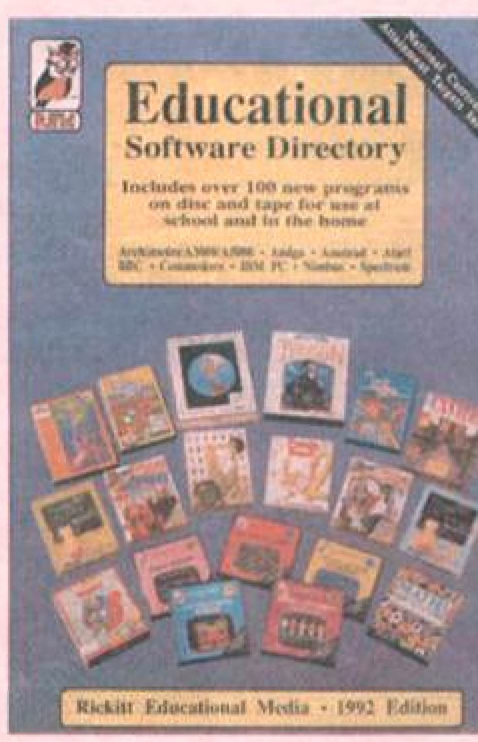
Database Software's *Fun School* series has been a best-seller right from the start. Until it appeared, educational software had been rather dreary stuff which was only marginally more exciting than watching a teacher scratching away at a blackboard.

Fun School was different. While its primary purpose was still to educate, the idea was to make it fun too! *Fun School 4* uses three different cartoon characters to accompany the child on his or her voyages of discovery. There are three version of the program: one for the under-5s, one for 5-7s and one for the 7-11s. Under-5s are helped along by Teddy the bear, the 5-7s learn in the company of Freddy Frog while the 7-11s get Sammy Spy. All three packages contain six different, very colourful and enjoyable games. In each case the system is simplicity itself – you select the program you want from a main menu screen.

Fun School 4 is designed to reflect the national curriculum, but caters purely for younger age groups. The games teach basic numeracy and literacy, though, not specific GCSE-type subjects. Kids still don't have a 'fun' equivalent.



One-stop shopping?



Although educational software is widely available via independent computer stores and various mail-order suppliers, by far the biggest source in the UK is Rickitt Educational Media. The company produces a directory of educational software each year – the 1992 directory contains no fewer than 96 A4 pages, and describes over 500 individual programs.

The directory normally costs £1, but AA readers can get a copy *free* by calling Rickitt on 0460 57152 and saying that we sent you.

Big down under?

While the CPC definitely plays second-fiddle to that decrepit has-been the BBC in UK schools, the South Australian government has proved far more enlightened. Indeed, our antipodean buddies have installed CPCs extensively in Australian schools, and the Australian government (we're told) has even set up its own publishing company – Satchel Software. Perhaps this is why so many keen *AA* readers hail from Oz?

Buyers' Guide Index

We've reached the end of our giant, definitive Buyers' Guide series, so now's a chance to recap on all the territory we've covered over the last ten (yes, 10!) issues:

SERIOUS

GAMES

September issue on sale 20th August

Next month in AA



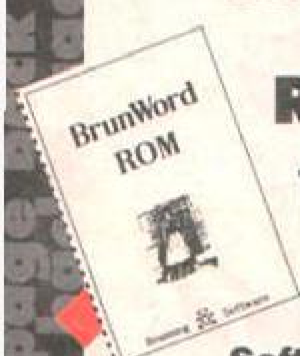
Big Bird, eh? Is that really the best we could come up with then? Gawd help us. Oh well, here's next month's lot...

Games at the Back



You want a sixteen page games section? You got it. Next month we gather *Action Test*, *Cheat Mode* and three pages of *Action Replay* together in a brand new position at the back of the magazine. Hurrah!

ROM at the Top



The first in a series of interviews (*People Profiles*) sees Rod dropping in on top serious programmer Peter Brunning of Brunning Software. We eavesdrop their conversation about the ROM version of the *Brunword* word processor...

Let's get Interactive



Get set to enter the *Action Zone*, an exciting new section of the magazine, featuring photos, art, gossip and more...

A New World



With the appearance of the (pretty crap) film *The Lawnmower Man* in the cinemas, virtual reality is now a mega-hip concept. Next month we cover the topic in depth. How does it work? What are virtual reality arcade games like? *AA* reveals all...

That Extra Dimension



3D on the Amstrad has come in many shapes and forms, from vector graphics to the stylish Freescape language. We catalogue the history of CPC 3D and detail all the classic 3D games out there for your machine...

Colour Prints



Roll up, roll up. Colour printing is a trouble strewn but great fun activity. For one month only *AA* presents a comprehensive guide, covering both colour printers and the special programs you use to get them printing out in colour.

don't miss it!

There are few things in the world better than **AMSTRAD ACTION**. Mint Crisp bars from BR vending machines, chilli flavour McCoys crisps... er, and that's it. All of which means you'd be a fool not to hand this form to your newsagent:

Dear Newsagent, I'm no fool, so please reserve *Amstrad Action* for me every month, starting with the September issue, probably out on Thursday 20th August. *Oh, and can I have a packet of chilli McCoys too, please.**

My name ....

My address..............................

....

....

* er, cross this bit out if you don't want any crisps – ed

back page competition

A puzzle for you this month, folks. Here's a screen shot we've knocked together, combining bits from a number of games featured in the past couple of months. The first person to send us a list of all the games included (by August 20th) will win £10 cash. Write to: Back Page Compo (AA83), Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW. the winner of the AA81 caption compo was Duncan Worth of Derbyshire who reckoned Ollie was saying "it started as a boil on my back". Tsch, you can't talk about our new Art Editor like that. That's our job.



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Citizen 120-D	3.95	7.00	15.00
Star LC-10 Mono	3.95	7.00	15.00
Star LC24-10	4.95	9.00	20.00
Panasonic KXP-1124	3.95	7.00	15.00
Star LC-10 Colour	5.95	11.00	–
Star LC200 Mono	5.50	10.00	–
Star LC200 Colour	10.95	19.95	–
Star LC24-200 Mono	4.95	9.00	–

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Mastercalc 128 *(Spreadsheet)*	25.95

COLOURDUMP 3

After a lot of feedback on ColourDump 2, we are now pleased to announce the latest version of the best colour screen printing program for the CPC range. Requires Star LC200 or compatible 9 pin colour printer.

Improved use with Advanced Art Studio. Will automatically read in palette file and set screen mode to ensure your page is the same as your screen. Uses compressed or uncompressed files.

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Use Multiface screens. A conversion routine is supplied to allow most Multiface screens to be used.

NO OTHER COLOUR SCREEN DUMP OFFERS SO MUCH.

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Advanced Art Studio (128K)	17.95
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GAMES DISKS

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For more information on the educational programs ask for the MJC Educational Supplement

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